A Catalog and Bibliography of the Buprestoidea of America North of Mexico

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Front Cover Photos—top left, *Sphaerobothris platti* (Cazier 1938), ♀; center, *Poecilonota salixi* Chamberlin 1925; bottom left, *Chrysobothris octocola* LeConte 1858; bottom right, *Thrincopyge ambiens* (LeConte 1854).

Back Cover Photos—top right, *Schizopus sallei* Horn 1885; center, *Acmaeodera gibbula* LeConte 1858; bottom left, *Acmaeoderoides stramineus* Nelson 1968.

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Preface

This volume is the result of at least 20 years of painstaking effort by Gayle Nelson, who we had personally known for at least 25 years, if not much longer. Gayle had originally planned to do this catalog as one fascicle of the now long-discontinued U.S. Department of Agriculture "Catalog of the Coleoptera of America north of Mexico", but when that project's funding source failed, he continued to accumulate data with the result published herein.

Readers will firstly notice that in the sense of the traditional catalog, at least how such a work usually looks and what is included, this volume differs in several ways. It is not a complete, all–inclusive list of all citations for all taxa and taxonomic acts over the time since their respective original descriptions. Often volumes appear with titles announcing "catalog", when in fact the contents are mere checklists, with or without annotation. This volume is far more than an annotated checklist, but still falls short of a full catalog; it might be best considered as a summary catalog if it really needs specific characterization.

About 1996, one of us (CLB) was approached by a California–based publisher who had an idea to publish a new volume or series and thus would do for buprestids what E. G. Linsley and J. A. Chemsak (1961–1997) had done for North American Cerambycidae, that is a complete monograph of the family for the fauna from north of Mexico. At that time, CLB was living overseas and suggested that Gayle should be contacted since he was already accumulating this catalog data and would be well–advanced towards such a potential project. There was also the suggestion that, with the advent of low–cost color printing and digital photography, it would be possible to produce such a North American buprestid monograph that would include color images for all species. Unfortunately that collaboration between Gayle and that publisher never went very far. However, as this project must have evolved in Gayle's mind, it is obvious to a few of us now that he continued to think about adding color images. Following Gayle's death (24 September 2005), two of us traveled back east to Blue Springs, Missouri, to be with Jean Nelson and to help her make informed decisions regarding the disposition of Gayle's entomological estate. It was already decided that Gayle's collection would be transferred to the Florida State Collection of Arthropods in Gainesville and we had coordinated their arrival with our time to help with the packing, etc. As we helped Mike Thomas and Paul Skelley over that weekend, we noticed that throughout Gayle's collection specimens had already been selected, their antennae and legs posed, locality labels were removed and he was apparently ready to begin photographing.

One of us (GCW) had been helping Gayle with the preparation of the catalog manuscript, receiving vast stacks of Gayle's carefully handwritten pages, then returning the typed (or electronic) copy for him to edit and correct. This effort went on for several years and was continuing up to the time of Gayle's death. And while this was going on, Gayle and CLB had been collaborating via email and snail mail on coordinating the reference lists for our respective catalog projects. CLB would send incomplete references that he had not been able to trace to Gayle and he would do the same in reverse. We would discuss the organization of the taxa and the appropriate higher classification to follow; changes were made following several substantial publications although Gayle remained skeptical of the need to immediately adopt the next radical shift in higher taxa. During the course of many exchanges, interesting things turned up, e.g. alternative dates of publication, gender issues, and one of us would ask the other "are you going to follow that?"

In early 2006, GWC contacted RDH to help review the nomenclature and format of the host lists. With the numerous sources that Gayle had relied on over the years there was a lack of uniformity to the various lists. It was decided that the best solution was to bring all of the botanical nomenclature up to today's taxonomic understanding. It was apparent throughout Gayle's manuscript that he had not intended to list all of the plant synonyms within the host list, and so for the sake of clarity none are given. One exception was the status of *Quercus dumosa* Nutt., Gayle had wanted to point out those specific host associations that were now known as *Q. berberidifolia* Liebm. in an effort to insure that there would not be confusion over which species was being considered the host. With the

tightening up of the format in the host lists additional effort was then turned to standardizing much of the rest of the manuscript.

The Bibliography that completes this catalog was a surprise to us all, since none of us had seen it until after Gayle's death. It is not just a list of references in the old sense, or the modern "Literature Cited" where each reference is used in the main catalog. Rather, and for reasons we can't explain, it is a partial bibliography of papers that include something about buprestids, whether original descriptions and taxonomic acts, or distributional, biological, ecological, host/parasite, etc. works, with many apparently having been included because of something Gayle thought would be of interest to the readers. With his design of the catalog categories, the great majority of the citations are not directly referenced to any particular taxon, but it has not been our intent to edit this volume and remove what might be seen as superfluous references as their inclusion has far more potential utility than any minor savings in costs or paper to cut it down to just a functional 'Lit. Cited'.

With Gayle's death, the task to complete this work fell to us, first to GCW since he had been involved with the manuscript and maintained the digital files (with assistance from RDH), and then to CLB to check against taxonomic changes and publications since 2005 that might need adding, including several that appeared only in early 2008. There were other data available that Gayle had not included, e.g. type registration numbers from various museums, to be included. A complete format adjustment then took place to tighten the presentation and arrangement of data which we think, makes the catalog far more utilitarian than the earlier layout. In the end, this is still Gayle's work, filled with detail, assembled together as his final contribution to his passion for buprestids, the largest distraction from his career as an anatomy professor. Gayle was an inspiration to all of us and we feel fortunate to have become involved in the concluding years with him, aiding in the completion of his catalog.

Gayle's life and entomological contributions were honored in a special memorial issue of *The Pan-Pacific Entomologist* (Volume 82(2):115–273) in 2006. In that work, 19 colleagues published 18 papers and notes recognizing Gayle either through anecdote or patronymic dedication. One of Gayle's final contributions was also published in that volume. The publication of this catalog is likely the penultimate publication as the joint revision of the genus *Anambodera* with GCW is still pending.

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Linsley, E. G. & J. A Chemsak. 1972–1997. The Cerambycidae of North America. Parts VI (1&2),VII (1&2), VIII. *University of California Publications in Entomology*, volumes 69, 80, 102, 114 & 117.

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Introduction

The superfamily Buprestoidea, as currently presented, includes two families: Schizopodidae and Buprestidae. Schizopodidae, "false jewel beetles," contains seven species in three genera from the far southwestern United States and adjacent northern Baja California.

Buprestidae "jewel beetles," "metallic wood borers" (adults) or "flat–headed borers" (larvae) are found almost wherever terrestrial plants occur. Worldwide there are nearly 14,800 valid species arranged in some 514 genera. In North America north of Mexico there are 787 species and 36 subspecies in 55 genera, with an additional 529 invalid names (e.g. junior synonyms and unavailable names) (Table 1). A few are of economic importance, feeding on plants used by man for food, shade or lumber. Several species recorded from North America have been either accidentally introduced through commerce, e.g. the emerald ash borer, *Agrilus planipennis* Fairmaire, *Aphanisticus seminulum cochinchinae* Obenberger and *Trachys troglodytiformis* Obenberger (= *pygmaea* (Fabricius 1787)) or to control introduced weeds, e.g. *Agrilus hyperici* (Cruetzer) and *Sphenoptera jugoslavica* Obenberger.

Most information about animal species, whether biological, experimental or economical, is filed under the species' scientific name. These names are therefore the key to retrieval of such information. Because some species have been known by several names, a complete listing of these names for each species is necessary.

For the user of scientific names, an up–to–date taxonomic catalog providing currently accepted (valid) names and pertinent bibliographic, distributional and biological data is an indispensable aid.

Since the buprestid catalog by Chamberlin (1926), the Coleoptera catalog by Leng (1920) with supplements to 1947 and the Buprestidae fascicles of the *Coleopterorum Catalogus* by Obenberger (1926–1937), reliable catalog information has not been available. It is hoped that the present work will fill this need for the North American fauna. Every effort has been made to include the needed published information about each species name in Buprestoidea as accurately as possible. The authors take full responsibility for any errors of fact or omission. Fossil species are not included. Original papers or copies of them have been consulted for all but a few of the references.

Taxonomy

The nomenclature of the Buprestidae began with Linnaeus (1758), who included 19 species in the genus *Buprestis* and set it apart on the basis of "*antennae setaceae longitudine thoracis, caput dimidum intra thoaceum retractum*". Olivier (1790) and Herbst (1801) maintained the genus *Buprestis* and added many new species. Fabricius (1801) added the genus *Trachys* and Curtis (1825) the genus *Agrilus*. Eschscholtz (1829) erected the family name as Buprestides and utilizing groupings proposed by Dalman in Schönherr (1817) (based on pronotal shape and features of the scutellum) established many additional genera. Solier (1833) contributed both order to the classification and new genera, but utilized difficult–to–see mouthparts as a basis for many of his groupings. In their monographs or faunal studies, Chevrolat (1834, 1835, 1838), Laporte & Gory (1835–1841), Kirby (1837), Mannerheim (1837), LeConte (1860), Deyrolle (1864) and Marseul (1865) added genera and/or species. Lacordaire (1857) introduced "tribes" and based them on the arrangement of antennal sensory pores. LeConte (1861a) and LeConte & Horn (1883) utilized a variety of basic body structures, including the shape and manner of articulation of the body sclerites, to erect many of the supra–generic groupings in use today. Kerremans (1893, 1902–1903, 1904–1914) studied the family worldwide. Fall (1899) revised *Acmaeodera* and added many new species to various genera. Casey (1909), inspite of an unconventional concept of species, added to our understanding of some genera. Knull (1920–1974) described and figured two new genera and many new species from the USA. Chamberlin (1926) published his *Catalogue of the Buprestidae of North America north of Mexico*. Fisher (1928a, 1942a) contributed revisions of *Agrilus* and the tribe Chrysobothrini and was the first to fully utilize male genitalia to distinguish species. Cobos (1955) used genitalia and wing venation, among other features, in proposing new tribes; and (1980) outlined thirteen subfamilies and suggested a fourteenth. Bellamy and Nelson, in Arnett, *et al.* (2002) presented keys to the USA genera.

Sloop (1937), Helfer (1941), Barr (1949), Evans (1957), Nelson (1968b, 1975b, 1978b, 1980c, 1981, 1986), Nelson & Bellamy (1996) and Nelson & Westcott (1991) revised various genera and groups. Barr (1970, 1974) reevaluated some genera and proposed two new ones, which were previously, included in *Acmaeodera*. Nelson & Bellamy (1991) utilized larval characteristics, wing venation, genital features and external adult characters in re-establishing Schizopodidae as a separate family. Hołyński (1993) proposed a new structure of higher categories in which he included Schizopodidae as one of four subfamilies and emphasized the subtribal category. Bellamy (1995a, 1996, 1997a, 1997b), Bellamy & Bílý (1997), Bellamy & Westcott (1996) and Bellamy & Williams (1985) have presented other interpretations with the help of cladistic methods. Volkovitsh (2001), in an extensive study of the evolutionary trends in comparative morphology of antennal structures, suggested some revisions in the higher classification of Buprestidae. Kolibáč (2001) contributed a significant phylogenetic study of the Buprestoidea based on many characters. Concepts of relationships among the higher categories will undoubtedly be influenced by DNA analyses already initiated.

Morphology

The adults vary in size from minute sub-triangular leaf-miners 1 mm long to elongate–oval tropical wood–borers up to 75 mm long. They are often of metallic or iridescent color, sometimes in gaudy array. Adults are characterized as follows: Head vertical, retracted into the prothorax as far as the large elliptical eyes; antennae inserted on front, generally 11-segmented, serrate or flabellate, modified segments with sensory pores; labrum small, distinct; mentum quadrate or triangular; mandibles short, stout; maxillary palpi short, with four palpomeres; labium with three palpomeres. Pronotum: transverse, quadrate or cylindro–conical. Elytra covering abdomen, occasionally brachypterous partially exposing flying wings (*Hesperorhipis, Trichinorhipis. Xenorhipis*). Prosternum fixed, immobile and prolonged posteriorly as a process inserted into mesosternum; mesosternum short, divided or emarginate; metasternum: transverse, with partial transverse suture near metacoxae. Procoxae and mesocoxae: globular or oval. Trochantins distinct; metacoxae transverse, platelike. Legs relatively, short. All tarsi with five tarsomeres, 1 to 4 progressively emarginated, each with pad–like lobe below; claws simple, variably lobed or bifid. Abdomen with five visible ventrites, first and second connate with weak suture.

The larvae are characterized by well-developed ambulatory plates on the dorsal and ventral surfaces of the first segment; each plate with a median line, groove or inverted V. The larvae are of two forms: one (bark- and wood-borers) with an abruptly dilated thoracic region and a long slender, subcylindrical abdomen ending in a bilobed fleshy segment or in a chitinous fork (*Agrilus*, *Eupristocerus*); the other flattened, rather oval and gradually tapering to the last segment (leaf-miners). Burke (1917a) figured and keyed the larvae of 20 of our genera and Benoit (1964, 1965b, 1966a, 1966b) described larvae of some species of the genera *Agrilus*, *Chrysobothris* and *Melanophila*.

Biology

Adults either feed on pollen, flowers, foliage, bark or occasionally on the spores of fungi. The oval eggs are laid singly or in a mass on the surface of leaves and bark or are inserted into cracks and crevices of wood or bark. Most larvae of wood boring groups mine injured, dying or dead trees and shrubs. A few apparently work in healthy living wood. Of the latter some cause gall formation on small limbs and twigs. Some feed in the roots, some in the bark, others in the sapwood and heartwood and several species mine cones. Their work consists of a flattened, oval, gradually enlarging, somewhat tortuous tunnel that widens into an elongate–oval pupal cell. This cell connects to the outer surface by a short tunnel leading to an oval or circular exit hole. The life cycle is completed in from one to several years. Some leaf mining species are multivoltine (e.g. MacRae 2004). The leaf mining larvae feed between the epidermal layers of living leaves. Detailed biology is known for only a few of the "pest" species and apart from these, the egg and pupal stages are largely unrecorded. The larvae of 17 of our 55 genera and of the great majority of our species remain undescribed.

Acknowledgments

The completion of this catalog would not have been possible without the input and help from many individuals and institutions regarding the types in their care or pertinent literature. Their contributions are greatly appreciated, among these are the following: D. Azuma, Academy of Sciences of Philadelphia; W. F. Barr, Moscow, Idaho; S. Bílý, National Museum of Natural History, Prague, Czech Republic; J. M. Davidson, Hereford, Arizona; P. Harpootlian, Simpsonville, South Carolina; H. A. Hespenheide, University of California, Los Angeles; E. Jendek, Slovak Academy of Sciences, Bratislavia, Slovak Republic; V. Kubáň, Moravian Museum, Brno, Czech Republic; T. C. MacRae, Monsanto Company, Chesterfield, Missouri; M. G. Volkovitsh, Zoological Museum, Academy of Science, St. Petersburg, Russia; S. G. Wellso, Bastrop, Texas; R. L. Westcott, Salem, Oregon; and to F. Harris for help in typing parts of the manuscript.

How to use this catalog

The classification framework used in this catalog utilizes all of the concepts currently available and largely follows that in Bellamy (2003a) and is augmented by recent changes proposed for the Palaearctic fauna from the recent catalogue of that fauna: Bílý (2006c), Jendek (2006), Kubáň (2006), Volkovitsh (2006) and Volkovitsh & Kalashian (2006). Schizopodidae is regarded as a valid family as was advanced by Nelson & Bellamy (1991, 2002). The family Buprestidae is recognized as having six major lineages, i.e. subfamilies. Of these, neither Galbellinae nor Julodinae are represented in the Western Hemisphere. The other four major lineages are Polycestinae, Chrysochroinae, Buprestinae and Agrilinae. The apparently polyphyletic Trachyini are placed within the Agrilinae. This framework does not accept the thirteen subfamilies, including Schizopodinae, of Cobos (1980) but has slightly increased from the grand general reduction proposed by Hołyński (1993). There is a general need to correlate biology, structure of adults and immatures in further developing buprestid classification and a utilization of modern molecular techniques will certainly add additional information to help polarize data that might otherwise be unable to help resolve some questions that would never be solved solely on morphological convergence. Several of the larger genera are in need of revision and the relationship of some tribes and subtribes remain unclear.

Generic groups and higher categories within the family are arranged in a putative phylogenetic sequence. Valid species names are arranged alphabetically while the respective invalid species names are arranged chronologically. Several notes are necessary about the general philosophy employed herein regarding the listing of erroneous concepts ("of authors") and those for infrasubspecific taxa. Below the species rank listings, the following headings for categories are used when needed:

"synonym": declared junior objective or subjective synonyms or those infrasubspecific taxa originally defined as varieties, e.g. *Chrysophana*:

placida

synonym: *cupriola* Van Dyke 1937:105 (as variety of *placida*).
synonym: *strandi* Obenberger 1936a:106 (as variety of *placida*).

"unavailable name": all infrasubspecific names that have been declared unavailable or are so according to the ICZN (1999, Articles 10.2, 45.5), e.g. *Chrysophana*:

placida

unavailable name: *coerulans* Obenberger 1924:100 (as aberration of *placida*).

"misidentification": as was employed in his respective revisions of North American *Agrilus* (Fisher 1928a) and Chrysobothrini (Fisher 1942a), the term "misidentification" is used to indicate an alternative, yet erroneous, concepts of species-group names "of authors" (*Auctorum*) other than the original author of a given taxon., e.g. *Acmaeodera*:

dolorosa dolorosa
misidentification: *fenyesi* of authors, not *fenyesi* Fall 1899

"misspelling": alternative spellings of original names, e.g. unjustified emendations, *lapsus calami*; these are *nomina nuda* and are unavailable, e.g. *Acmaeodera*:
comata
misspelling: *conata* (error for *comata*, *nomen nudum*).

One other possibly novel catalog format adjustment has been applied herein. Rather than simply presenting a bold-faced alphabetical list of valid species and subspecies beneath each respective genus, we have added an additional line for each subspecies and each synonym in the alphabetical list so that a user unfamiliar with the taxonomic history of any particular taxon would not have to make a visual search or turn to the index to find a name missing from the bold–faced valid names, e.g.

nelsoni Beer 1974 [ssp. of *hornii*]
nigra Casey 1909 [syn. of *divaricata*]
obscura (Fabricius) 1781:274 (*Buprestis*).

This method may add several extra pages of text, arguably redundant, but we think that such a format permits more rapid location of any given name without constantly having to thumb between the main text and the index. Please note that these extra listings are only for invalid available names, not for unavailable names nor spellings errors.

The general intra-generic and intra-specific formatting follows the general pattern of the now discontinued "Catalog of the Coleoptera of America north of Mexico," originally sponsored by the U.S. Department of Agriculture. Some categories are much expanded. Each available name is followed by the author(s), date proposed and page number referring to the complete bibliographic citation containing the original description. Following each generic name are the type–species and method of its designation, necessary explanatory notes and pertinent references on immature stages, taxonomy, redescription, ecology and keys. After the specific name entry is the original genus, explanatory notes, type locality, type–specimen depository and its sex if known, pertinent references to immature stages, taxonomy, redescription, ecology information; geographical distribution by country state or province and hosts. Larval hosts and then adult "hosts" are listed alphabetically. The scientific names of plants are current as listed in: Hickman, James C. (Ed.) 1996. *The Jepson Manual Higher Plants of California*, University of California Press Berkeley, CA 94720 USA and USDA, NRCS 2006, "The Plants Database (http:/plants usda gov, 28 September 2006) National Plant Data Center", Baton Rouge, LA 70874–4490 USA.

Abbreviations

Abbreviations used in this catalog: abd. = abdominal; ab.= aberration; Agric = Agricultural; Amer. Bor. = America Borealis; Amer Sept = America Septentrionalis; autom = automatic; BCN = Baja California (Norte); BCS = Baja California Sur; biol. = biology; CAN = Canada; Cyn = canyon; Coll = Collection; Co = County; Cr = Creek; design = designated; distr. = distribution; E = East; fig., figs. = figure, figures; Hwy = Highway; holarc = holartic; IND = Indies; Isl. = Island: jct. = Junction; lat. = lateral; mi = mile; Monot = Monotype; Mtns = Mountains; Mtn = Mountain; Mus = Museum; N.P. = National Park; N = North; No. Amer. = North America; NE = Northeast; NW = Northwest; ovip. = ovipositor; pl. = plate; preocc. = preoccupied; Rge = Range; R = River; Rd = Road; S = South; sp. = species; Sprs = Springs; ssp. = subspecies; syn. = synonymized; USA = United States of America; var = variety; W = West.

Museums and their Codens

AMNH – American Museum of Natural History, New York City, New York
ANSP – Academy of Natural Sciences, Philadelphia, Pennsylvania
BMNH – British Museum (Natural History), London, United Kingdom
CASC – California Academy of Sciences, San Francisco
CNCI – Canadian National Collections, Ottawa
DEIC – Deutsches Entomologisches Institut, Eberswalde, Germany
FMNH – Field Museum of Natural History, Chicago, Illinois
GUHC – Glasgow University, Hunterian College, Scotland
HNHM – Hungarian Natural History Museum, Budapest, Hungary
ICCM – Carnegie Museum, Pittsburgh, Pennsylvania
IZAC – Instituto de Zoologia, Academia de Diencias de Cuba, Habana
LACM – Natural History Museum of Los Angeles County, California
LSUC – Louisiana State University, Baton Rouge, Louisiana
LSUK – Linnean Society, London, United Kingdom
MCPM – Milwaukee City Public Museum, Milwaukee, Wisconsin
MCZC – Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts
MHNG – Museum, d'Histoire Naturelle, Geneva, Switzerland
MHNL – Musee Guinet d'Histoire Naturelle de Lyon, Lyon, France
MNHG – Museum für Naturkunde, Humboldtät, Berlin, Germany
MNHN – Museum National d'Histoire Naturelle, Paris, France
MNNC – Museo Nacional de Histoia Natual, Santiago, Chile
MSUC – Michigan State University, East Lansing, Michigan
NHMV – Naturhistorisches Museum, Vienna, Austria
NHRS – Naturhistoriske Riksmuseet, Stockholm, Sweden
NMBS – Naturistorische Museum, Bern, Switzerland
NMPC – Narodni Museum, Prague, Czech Republic
NSMT – National Science Museum (Natural History) Tokyo, Japan
NYSM – New York State Museum, Albany, New York
OSUO – Oregon State University, Corvallis, Oregon
OXUM – University Museum, Oxford, United Kingdom
PURC – Purdue University, West Lafayette, Indiana
SEMC – Snow Museum, University of Kansas, Lawrence, Kansas
SNMB – Staatliches Naturhistoriches Museum, Braun–Schweig, Germany
TARI – Taiwan Agricultural Research Institute, Taichung, Taiwan
UCRC – University of California, Riverside, California
UNAM – Universidad National Autonoma de Mexico, Mexico, D.F.
USNM – U. S. National Museum of Natural History, Washington, D.C.
UZMC – University Zoological Museum, Copenhagen, Denmark
UZMH – University Zoological Museum, Helsinki, Finland
ZIN – Zoological Institute, Academy of Science, St. Petersburg, Russia
ZMHB – Museum für Naturkunde der Humboldt, Universitat zu Berlin, Germany
ZMUM – Zoological Museum, University of Moscow, Russia

Alphabetical list of the Provinces and Territories of Canada and The United States of America

CANADA

AB -Alberta
BC -British Columbia
LB -Labrador
MB -Manitoba
NB -New Brunswick
NF -Newfoundland
NS -Nova Scotia
NT -Northwest Territories
ON -Ontario
PE -Prince Edward Island
PM -St. Pierre– Miquelon
PQ -Quebec
SK -Saskatchewan
YT -Yukon Territory

USA

AK -Alaska
AL -Alabama
AR -Arkansas
AZ -Arizona
CA -California
CO -Colorado
CT -Connecticut
DC -Dist. of Columbia
DE -Delaware
FL -Florida
GA -Georgia
IA -Iowa
ID -Idaho
IL -Illinois
IN -Indiana
KS -Kansas
KY -Kentucky
LA -Louisiana
MA -Massachusetts
MD -Maryland
ME -Maine
MI -Michigan
MN -Minnesota
MO -Missouri
MS -Mississippi
MT -Montana
NC -North Carolina
ND -North Dakota
NE -Nebraska
NH -New Hampshire
NJ -New Jersey
NM -New Mexico
NV -Nevada
NY -New York
OH -Ohio
OK -Oklahoma
OR -Oregon
PA -Pennsylvania
RI -Rhode Island
SC -South Carolina
SD -South Dakota
TN -Tennessee
TX -Texas
UT -Utah
VA -Virginia
VT -Vermont
WA -Washington
WI -Wisconsin
WV -West Virginia
WY -Wyoming

SUPERFAMILY BUPRESTOIDEA LEACH 1815

Bupresti Leach 1815:85.

Buprestoidea: Crowson 1955:15, 58–60; Bellamy & Volkovitsh 2005:461, 463.

FAMILY SCHIZOPODIDAE LECONTE 1859

Schizopodidae LeConte 1859b:122.

Classification: LeConte 1859b (as family); 1866; LeConte & Horn 1883; Kerremans 1893; 1902; 1907; Obenberger 1926 (as tribe); Arnett 1962; Nelson 1982; Bellamy 1985 (as subfamily); Nelson & Bellamy 1991; 2002 (as family); Hołyński 1993; Volkovitsh 2001 (as subfamily); Kolibác 2001 (as family); Bellamy 2003a.

Geographic Distribution: Nelson & Bellamy 1991.

Biology: Nelson & Bellamy 1991.

Morphology: Good 1925 (wing); Rees 1941 (larva); Nelson & Bellamy 1991 (♂ & ♀, genitalia, wing, larva); Volkovitsh 2001 (antennae).

Key(s): Arnett 1962:483 (genera); Nelson & Bellamy 1991:987 (tribes, genera, species & subspecies); 2002:96 (tribes & genera).

Subfamily Schizopodinae LeConte 1859

Schizopodidae LeConte 1859b:122.

Schizopodinae: Crowson 1955:60.

Tribe Schizopodini LeConte 1859

Schizopodidae LeConte 1859b:122.

Schizopini LeConte 1866:386.

Type genus: *Schizopus* LeConte 1858.

Schizopodini: Nelson 1982:386 (spelling emendation).

Schizopodina: Hołyński 1993.

Classification: LeConte 1866; LeConte & Horn 1883; Kerremans 1893; 1902; 1904; 1907; Obenberger 1939; Arnett 1962; Nelson 1982; Bellamy 1985; Nelson & Bellamy 1991; 2002; Hołyński 1993; Bellamy 2003a.

Key(s): Kerremans 1907:583 (genera & species); Arnett 1962:483 (genera); Nelson & Bellamy 1991:987 (genera, species & subspecies); 2002:96 (genera).

Genus *Schizopus* LeConte 1858

Schizopus LeConte 1858a:70.

Type species: *Schizopus laetus* LeConte 1858 (fixed by monotypy).

Yermoella Obenberger 1939a:263 – Synonymy: Cazier 1941:33.

Type species: *Yermoella helferi* Obenberger 1939 (fixed by original designation).

Immature stages: Rees 1941 (first instar larva).

Taxonomy: Rees 1941; Cazier 1941; Nelson 1982; Nelson & Bellamy 1991; Volkovitsh 2001; Nelson & Bellamy 2002; Bellamy 2003a.

Redescription: Nelson & Bellamy 1991:989.

Ecology: Nelson & Bellamy 1991 (biol., distr.).

Key(s): Kerremans 1907:592; Obenberger 1939a:257; Cazier 1939a:86; Nelson & Bellamy 1991:987.

laetus LeConte 1858a:71 (♂).

Type locality: None listed but gold disk on type indicates CA – Type depository: MCZC 2712 (♂).

synonym: *helferi* (Obenberger) 1939a:264, plate 11, fig. 4 (♀) (*Yermoella*) – Synonymy: Cazier 1941:33.

Type locality: S CA – Type depository: DEIC (♀) (Lectotype designation: Nelson *in* Nelson & Bellamy 1991:994).

Taxonomy: Cazier 1941; Nelson & Bellamy 1991.

Redescription: Obenberger 1939a:264, plate 11, fig. 4 (♀ as *Yermoella helferi*); Nelson & Bellamy 1991:993 (♂, ♀), figs. 1, 2, 22–27, 52, 59, 80 (habitus, parts, genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 1 (adults, sexes reversed); Volkovitsh 2001: fig. 1 (antennomere).

Ecology: Cazier 1939a; Nelson & Bellamy 1991 (biol., distr.); Nelson, *et al.* 1996 (biol.).

Distribution: **USA**: AZ, CA, NV

Host(s): adults on *Boerhavia annulata* Cov., *Cassia armata* S. Wats., *Chaenactis carphoclinia* Gray, *Dalea schottii* Torr., *Encelia farinosa* T. & G., *Ephedra californica* S. Wats., *Eschscholzia* sp. and *Geraea canescens* T. & G.

sallei nigricans Nelson *in* Nelson & Bellamy 1991:996 (♂, ♀), figs. 30a, 80 (clypeus, distr.).
Type locality: CA, San Benito Co., 8.2 mi W of I–5, Panoche Rd. – Type depository: CASC 16780 (♀).
Ecology: Nelson & Bellamy 1991 (biol., distr.).
Distribution: **USA**: CA
Host(s): adults on dried grass.

sallei sallei Horn 1885:145 (♀), plate 4, fig. 14 (adult).
Type locality: CA, Mariposa – Type depository: MCZC 33801 (♀).
Immature stages: Rees 1941:214, plate 23 (first instar larva).
Taxonomy: Obenberger 1939a; Cazier 1939a; Rees 1941; Nelson & Bellamy 1991.
Redescription: Good 1925: plate 11 (wing); Cazier 1939a:85 (♂); Nelson & Bellamy 1991 (♂, ♀), figs. 3, 14, 15, 28, 29, 30b, 31, 53, 60, 80 (♂ habitus, parts, genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 2 (♀).
Ecology: Cazier 1939a; Nelson & Bellamy 1991.
Distribution: **USA**: CA
Host(s): adults on dry grass, *Brodiaea* sp., *Clarkia* sp., *Dichelostemma* sp. and *Triteleia* sp.

Tribe Dystaxiini Théry 1929
Dystaxiini Théry 1929b:60.
Type genus: *Dystaxia* LeConte 1866.
Glyptoscelimorphini Cobos 1963b:354; Nelson & Bellamy 1991:997 (synonym of Dystaxiini).
Type genus: *Glyptoscelimorpha* Horn 1893.
Dystaxiina: Hołyński 1993.
Classification: Théry 1929b; Bellamy 1985; Nelson & Bellamy 1991; 2002; Volkovitsh 2001; Bellamy 2003a.
Key(s): Arnett 1962:483 (genera as Schizopinae, *lapsus calami*); Nelson & Bellamy 1991:987 (genera, species & subspecies); 2002:96 (genera).

Genus *Dystaxia* LeConte 1866
Dystaxia LeConte 1866:385.
Type species: *Dystaxia murrayi* LeConte 1866 (fixed by original designation).
Immature stages: Nelson & Bellamy 1991 (larva).
Taxonomy: Nelson 1982; Nelson & Bellamy 1991; 2002; Volkovitsh 2001; Bellamy 2003a.
Redescription: Nelson & Bellamy 1991:997.
Ecology: Chamberlin 1926; Nelson & Bellamy 1991 (biol., distr.).
Key(s): Kerremans 1907:587; Nelson & Bellamy 1991:987.

cuprea Knull 1947 [syn. of *murrayi*]

elegans Fall 1905:71 (♂, ♀).
Type locality: CA, San Diego – Type depository: MCZC 24433 (♂) (Lectotype designation: Nelson & Bellamy 1991:1001).
Taxonomy: Nelson & Bellamy 1991.
Redescription: Obenberger 1939a: plate 11, fig. 2 (adult); Nelson & Bellamy 1991:1000 (♂, ♀), figs. 5, 12, 13, 36–39, 55, 62, 81 (habitus, parts, genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 4 (♂, ♀); Volkovitsh 2001: fig. 4 (♂ antennomere).
Ecology: Walters & Bellamy 1982 (biol.); Nelson & Bellamy 1991 (biol., distr.).
Distribution: **USA**: CA
Host(s): adults on *Quercus agrifolia* Neé and *Q. berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.).

lecontei Thomson 1879 [syn. of *murrayi*]

murrayi LeConte 1866:385.
Type locality: CA – Type depository: MCZC 2711 (♀).
synonym: *lecontei* Thomson 1879:6 – Synonymy: Horn 1891a:45.

Type locality: CA – Type depository: MNHN (♂).
synonym: *cuprea* Knull 1947a:72 (as subspecies of *murrayi*) – Synonymy: Nelson 1980a:92.
Type locality: CA, Cajon Pass – Type depository: FMNH (♀).
Taxonomy: Nelson 1980a; Nelson & Bellamy 1991.
Redescription: Good 1925: plate 11 (wing); Nelson & Bellamy 1991:998 (♂, ♀), figs. 4, 9–11, 32–35, 54, 61, 81 (habitus, parts, genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 3–1 (♂, ♀).
Ecology: Chamberlin 1926; Nelson & Bellamy 1991 (biol., distr.).
Distribution: **USA**: CA
Host(s): adults on *Chrysothamnus nauseosus* (Pall.) Britt. ssp. *mohavensis* (Greene) Hall & Clem. and *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.).

Genus *Glyptoscelimorpha* Horn 1893
Glyptoscelimorpha Horn 1893:137.
Type species: *Glyptoscelimorpha marmorata* Horn 1893 (fixed by monotypy).
Taxonomy: Nelson & Bellamy 1991; Volkovitsh 2001; Nelson & Bellamy 2002; Bellamy 2003a.
Redescription: Nelson & Bellamy 1991:2002.
Ecology: Nelson & Bellamy 1991.
Key(s): Nelson & Bellamy 1991:987.

subgenus *Glyptoscelimorpha* (*Dystaxiella*) Knull 1940
Dystaxiella Knull 1940c:362 (as genus).
Type species *Dystaxiella juniperae* Knull 1940 (fixed by original designation).
Taxonomy: Nelson & Bellamy 1991; 2002; Bellamy 2003a.
Redescription: Nelson & Bellamy 1991:1002.
Ecology: Nelson & Bellamy 1991.
Key(s): Nelson & Bellamy 1991:987.

juniperae juniperae (Knull) 1940c:362 (*Dystaxiella*) (♂, ♀).
Type locality: CA, Mountain Springs – Type depository: FMNH (♂).
Taxonomy: Nelson & Bellamy 1991.
Redescription: Nelson & Bellamy 1991:1002 (♂, ♀) figs. 6, 16, 17, 48–51, 56, 63, 82 (habitus, parts, genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 6 (as *G. marmorata*).
Ecology: Nelson & Bellamy 1991 (biol., distr.).
Distribution: **USA**: CA
Host(s): adults on *Juniperus californica* Carr.
juniperae viridiceps Nelson *in* Nelson & Bellamy 1991:1005 (♂, ♀).
Type locality: CA, Inyo Co., Hwy. 190, near Jackass Springs – Type depository: CASC 16750 (♂).
Taxonomy: Nelson & Bellamy 1991.
Ecology: Nelson & Bellamy 1991 (biol., distr.)
Distribution: **USA**: CA
Host(s): adults on *Juniperus osteosperma* (Torr.) Little.

subgenus *Glyptoscelimorpha* (*Glyptoscelimorpha*) Horn 1893
Glyptoscelimorpha Horn 1893:137.
Type species: *Glyptoscelimorpha marmorata* Horn 1893.

marmorata Horn 1893:137 (♂).
Type locality: CA, near Los Angeles – Type depository: MCZC 33800 (♂) (Lectotype designation: Nelson & Bellamy 1991:1007).
Taxonomy: Nelson & Bellamy 1991.
Redescription: Good 1925: plate 11 (wing); Obenberger 1939a: plate 11, fig. 1 (adult); Nelson & Bellamy 1991:1006 (♂, ♀), figs. 7, 20, 21, 40–43, 57, 64, 82 (habitus, parts, genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 7 (as *G. juniperae*).
Ecology: Walters 1978; Nelson & Bellamy 1991 (biol., distr.).
Distribution: **USA**: CA
Host(s): adults on *Juniperus californica* Carr.

viridis Chamberlin 1931:47 (♂, ♀).
Type locality: CA, Palmdale – Type depository: CASC 5475 (♂).
Taxonomy: Nelson & Bellamy 1991.
Redescription: Nelson & Bellamy 1991:1008 (♂, ♀), figs. 8, 18 19, 44–47, 58, 65, 82 (habitus, parts, genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 5 (♂, ♀); Volkovitsh 2001: figs. 2, 3 (antenna).
Ecology: Nelson 1959 (biol.); Nelson & Bellamy 1991 (biol., distr.).
Distribution: **USA**: CA
Host(s): adults on *Juniperus californica* Carr.

FAMILY BUPRESTIDAE LEACH 1815

Bupresti Leach 1815:85.
Type genus: *Buprestis* Linnaeus 1758.
Bupreste Olivier 1790.
Sternoxes Latreille 1804.
Buprestoides Burmeister 1829.
Buprestites Newman 1834.
Buprestidae: Laporte 1835.
Priocerata Westwood 1839.
Bupresti Redtenbacher 1845.
Pteroteidae Gistel 1848b:cover – (3).
Type genus: *Ancylochira* Eschscholtz 1829.
Buprestes Schioedte 1865.
Buprestidi Acloque 1896.
Buprestinae Fowler 1912.
Classification: Eschscholtz 1829; Solier 1833; Laporte & Gory 1835–1841; Kirby 1837; Westwood 1840; Lacordaire 1857; LeConte 1860; 1861; LeConte & Horn 1883; Kerremans 1893; 1902–1903; 1904–1914; Casey 1909; Théry 1929; Arnett 1962; Cobos 1979; 1980; Nelson 1982; Bellamy 1985; 1996b; Tôyama 1987; Hołyński 1993; Bílý 1999a; Kolibác 2001; Kubáň, *et al*. 2001; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.
Geographic Distribution: Kerremans 1894; 1904; Leng 1920; Chamberlin 1926; Obenberger 1926; 1930; Leng & Mutchler 1927; 1933; Obenberger 1934; 1935; 1936; 1937; Blackwelder 1939; Blackwelder & Blackwelder 1948.
Biology: Kerremans 1904; Burke 1917a; Essig 1926; Craighead 1950; Furniss & Carolin 1977; Crowson 1981; Solomon 1995.
Morphology: Lacordaire 1857; Kerremans 1904; Burke 1917a (larvae); Good 1925 (wings); Lawrence 1991 (larvae); Bílý 1999 (larvae).
Key(s): LeConte & Horn 1883:195; Kerremans 1893:101; 1902:5 (tribes & genera); 1904:37 (tribes); Burke 1917a:5 (larvae, genera); Arnett 1962:483 (genera); Wellso, *et al*. 1976 (Michigan genera & species); Cobos 1980:18 (subfamilies); Nelson 1982; 432 (subfamilies & tribes); Bright 1987:23 (Canada & Alaska subfamilies, tribes, genera & species); MacRae 1991 (same for Missouri); Hołyński 1993:33 (subfamilies, tribes & subtribes); Downie & Arnett 1996:737 (NE No. Amer. subfamilies); Bílý 1999a (Central European larvae, subfamilies & genera); Bellamy & Nelson 2002:101 (tribes, subtribes & genera).

Subfamily Polycestinae Lacordaire 1857

Polycestinae Lacordaire 1857:61.
Type genus: *Polycesta* Eschscholtz 1829.
Excutellatae (Section 2) Schönherr 1817 (part).
Chrysochroites Laporte & Gory 1837 (part).
Polycestides Lacordaire 1857.
Julodini LeConte 1861 (part).
Acmaeoderini Kerremans 1893 (part).
Polycestites Kerremans 1902 (part).
Acmaeoderinae Arnett 1962 (part).
Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1902; 1905; Burke 1917a

(larvae); Arnett 1962; Cobos 1955; 1980; 1981; Nelson 1982; Bellamy 1985; Bílý 1999a; Kolibác 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.

Key(s): Kerremans 1905:373 (genera); Cobos 1980:25, 87 (tribes & genera); Bellamy & Nelson 2002:101 (tribes & genera).

Tribe Haplostethini LeConte 1861

Haplostethini LeConte 1861:161.

Type genus: *Haplostethus* LeConte 1860.

Mastogeniini LeConte & Horn 1883:195, 199 (Mastogenini).

Type genus: *Mastogenius* Solier 1849.

Classification: LeConte & Horn 1883; Kerremans 1893; 1903; Cobos 1957a; Arnett 1962; Nelson 1982; Tôyama 1983; Bellamy 1985; Manley 1986; Kolibác 2001; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2002a; 2002b; 2003a.

Key(s): Kerremans 1903:332; Cobos 1957a:92; Arnett 1962:485; Manley 1986; Bellamy & Nelson 2002:102; Bellamy 2002a:7.

Genus *Mastogenius* Solier 1849

Mastogenius Solier 1849:507.

Type species: *Mastogenius parallelus* Solier 1849 (fixed by monotypy).

Haplostethus LeConte 1860:253 – Synonymy: LeConte & Horn 1883:199.

Type species: *Haplostethus subcyaneus* LeConte 1860 (fixed by monotypy).

Taxonomy: Cobos 1956b; Toyoma 1983; Manley 1986; Bellamy 1987a; 1990; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2002; 2003c.

Key(s): Obenberger 1939c:78; Tôyama 1983:55 (genera); Bellamy 2002:7 (genera & species).

antennatus Cazier 1952 [syn. of *castlei*]

arizonicus Bellamy 2002a:2, figs. 1–3 (adults, ♂ genitalia).

Type locality: AZ, Pima Co., Santa Catalina Mtns., Oracle–Mt.Lemmon Road, vic. Marble Peak, N32E27'46", W11DE43'53" – Type depository: LACM (♂).

Taxonomy: Bellamy 2002a.

Ecology: Bellamy 2002a (biol., distr.).

Distribution: **USA**: AZ

Host(s): adults on dead branches *Quercus hypoleucoides* Camus.

castlei Champlain & Knull 1922:145.

Type locality: FL, Miami – Type depository: FMNH (♀).

synonym: *antennatus* Cazier 1952:6 – Synonymy: Westcott 1990:256.

Type locality: Brit. W Ind., Bahamas, S Bimini Isld. – Type depository: AMNH (♂).

Taxonomy: Westcott 1990; Bellamy 2002a.

Ecology: Knull 1954b (as *antennatus*); Bellamy 2002a (distr.); Westcott 1990; MacRae & Nelson 2003 (biol.).

Distribution: **USA**: FL; also recorded from the West Indies.

Host(s): larvae in pods of *Tamarindus indica* L.; adults also on *Conocarpus erectus* L. and *Laguncularia racemosa* (L.) Gaertn. f.

crenulatus Knull 1934:334 (as subspecies of *subcyaneus*).

Type locality: PA, Dauphin Co., Clark's Valley – Type depository: FMNH.

synonym: *knulli* Obenberger 1939c:79 – Synonymy: Nelson 1985b:140.

Type locality: TX – Type depository: NMPC

Taxonomy: Hespenheide 1974.

Ecology: Nelson 1987a; MacRae 2006 (biol., distr.); Nelson & MacRae 1990; Bellamy 2002a (distr.); Knull 1974; Nelson, *et al*. 1981; 1996 (biol.).

Distribution: **Canada**: ON; **USA**: AL, AR, CT, FL, GA, IL, LA, MD, MO, NC, NJ, OH, PA, SC, TN, TX

Host(s): larvae in *Carya illinoinensis* (Wangenh.) K. Koch., *Cercis canadensis* L., *Diospyros texana* Scheele and *Quercus alba* L., *Q. phellos* L.; adults also on *Acer saccharum* Marsh. and *Salix* sp.

knulli Obenberger 1939 [syn. of *crenulatus*]

puncticollis Schaeffer 1919:213.
Type locality: AZ, Huachuca Mtns – Type depository: USNM 42634.
Ecology: Walters & Bellamy 1990 (biol.); Bellamy 2002a (distr.).
Distribution: **USA**: AZ, CA
Host(s): adults on *Quercus* sp.

robustus Schaeffer 1905b:148.
Type locality: AZ, Cochise Co., Palmerlee – Type depository: USNM 42645 (Lectotype not designated).
Ecology: Nelson 1965 (biol.); Bellamy 2002a (distr.).
Distribution: **USA**: AZ
Host(s): adults on *Quercus hypoleucoides* Camus.

subcyaneus (LeConte) 1860:254 (*Haplostethus*).
Type locality: Southern States – Type depository: MCZC 2737 (Lectotype designation: Knull 1934d:334).
Taxonomy: Tôyama 1983.
Redescription: Knull 1925: plate 7, fig. 3 (adult); Good 1925: plate 11 (wing); Akiyama & Ohmomo 2000: fig. 11.
Ecology: Kissinger 1955 (biol.); Hespenheide 1974; Nelson, *et al. I*981; Nelson 1987a; Bellamy 2002a (distr.).
Distribution: **USA**: CT, DC, DE, FL, GA, IL, IN, LA, MD, MO, MS, NC, NJ, NY, PA, RI, SC, TN, TX, VA, WV
Host(s): larvae in *Quercus* sp.; adults also on *Cornus* sp.

texanus Bellamy 2002:4, figs. 4–6 (adults, ♂ genitalia).
Type locality: TX, Jeff Davis Co., Davis Mtns., Picnic Area, 11.3 mi W Ft. Davis on Hwy 161, elev. 5080' – Type depository: LACM (♂).
Taxonomy: Bellamy 2002a
Ecology: Bellamy 2002a (biol., distr.).
Distribution: **USA**: TX
Host(s): larvae in *Quercus pungens* Liebm. var. *vaseyana* (Buckl.) C.H. Muller.; adults also on *Q. grisea* Liebm.

Genus *Trigonogya* Schaeffer 1919
Trigonogya Schaeffer 1919:213.
Type species: *Mastogenius reticulaticollis* Schaeffer 1904 (fixed by original designation).

reticulaticollis (Schaeffer) 1904:210 (*Mastogenius*).
Type locality: TX, Brownsville – Type depository: USNM 8761.
Ecology: Knull 1937b; MacRae 2006 (biol., distr.).
Distribution: **USA**: TX
Host(s): larvae in *Fraxinus berlandieriana* DC. (misapplied to *F. caroliniana* Mill.).

Genus *Micrasta* Kerremans 1893
Micrasta Kerremans 1893:115.
Type species: *Micrasta typica* Kerremans 1893 (fixed by original designation).
Taxonomy: Kerremans 1893:115; 1896:148; 1903:332.
Redescription: Kerremans 1896:148.
Key(s): Kerremans 1896:148 (revision, key to species).

oakleyi Fisher 1935:30.
Type locality: Ponce, Puerto Rico – Type depository: USNM 50779.
Ecology: Nelson, *et al. I*996 (biol., distr.).
Distribution: **USA**: FL; also recorded from the West Indies.
Host(s): adults on *Trophis racemosa* (L.) Urban.

Tribe Acmaeoderini Kerremans 1893
Acmaeoderini Kerremans 1893:112.

Type genus: *Acmaeodera* Eschscholtz 1829.
Exscutellatae (Section 2) Schönherr 1817 (part).
Chrysochroites Laporte & Gory 1837 (part).
Polycestides Lacordaire 1857 (part).
Julodini LeConte 1861 (part).
Acmaeoderites Kerremans 1893 (part).

Subtribe Acmaeoderoidina Cobos 1955
Acmaeoderoidina Cobos 1955:15 (as tribe).
Type genus: *Acmaeoderoides* Van Dyke 1942.
Classification: Cobos 1955; 1980; Nelson 1970; 1982; Bellamy 1985; Holm 1986; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Key(s): Bellamy & Nelson 2002:102 (genera).

Genus *Acmaeoderoides* Van Dyke 1942
Acmaeoderoides Van Dyke 1942:108.
Type species: *Acmaeoderoides insignis* Horn 1894 (fixed by monotypy).
Taxonomy: Cobos 1955 (tribal placement); Nelson 1968c (revision); Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003.
Redescription: Nelson 1968c:127.
Ecology: Nelson 1968c; 1999 (biol., distr.).
Key(s): Nelson 1968c:128; 1999:374.

balli (Knull) 1937 [syn. of *rossi*]
cazieri Nelson 1968c:137 (♂, ♀), fig. 8 (adult ♂).
Type locality: CA, Imperial Co., 11 mi S Palo Verde – Type depository: CASC 9827 (♀).
Taxonomy: Nelson 1968c.
Redescription: Akiyama & Ohmomo 2000: fig. 163 (♂).
Ecology: Nelson 1968c (biol., distr.).
Distribution: **USA**: CA
Host(s): adults on *Atriplex lentiformis* (Torr.) S. Wats., *Prosopis glandulosa* Torr. and *P. pubescens* Benth.
confusus Nelson 1999:371 (♂, ♀), fig. 1 (adult ♀).
Type locality: CA, Riverside Co., above Palm Desert, Hwy. 74, 3500' – Type depository: CASC 17650 (♀).
Taxonomy: Nelson 1999.
Ecology: Walters & Bellamy 1982 (as *verityi*); Nelson 1999 (biol., distr.)
Distribution: **USA**: AZ, CA; also recorded from Mexico: BCN.
Host(s): larvae in *Simmondsia chinensis* (Link) C.K. Schneid.; adults also on flowers of *Eriogonum fasciculatum* (Benth.) T. & G., *E. inflatum* Torr. & Frem., *E. trichopes* Torr. and *Hyptis emoryi* Torr.
depressus Nelson 1968c:136 (♂, ♀), fig. 7 (adult ♀).
Type locality: CA, Imperial Co., Mt. Springs, E of Jacumba – Type depository: CASC 9828 (♀).
Taxonomy: Nelson 1968c.
Ecology: Nelson 1968c (biol., distr.).
Distribution: **USA**: CA; also recorded from Mexico: BCN.
Host(s): adults on flowers of *Salvia vaseyi* (Porter) Parish.
distinctus Nelson 1968c:129 (♂, ♀), fig. 1, 5 (ovipositor, adult ♀).
Type locality: CA, Riverside Co., Pinyon Flat, 4000' – Type depository: CASC 9829 (♀).
Taxonomy: Nelson 1968c.
Ecology: Nelson 1968c (biol., distr.); 1999 (distr.).
Distribution: **USA**: CA; also recorded from Mexico.
Host(s): adults on flowers of *Eriogonum fasciculatum* (Benth.) T. & G. and *Salvia apiana* Jeps.
ferruginis Wellso & Nelson *in* Nelson 1968c:132, fig. 6 (adult ♂).
Type locality: TX, Presidio Co., 3 mi N Presidio – Type depository: AMNH (♂).
Taxonomy: Nelson 1968c.

Redescription: Nelson 1999:375 (♀)
Ecology: Nelson 1968c; 1999 (biol.).
Distribution: **USA**: TX
Host(s): adults on *Acacia greggii* Gray and flowers of *Tiquilia greggii* (T. & G.) Richards.

humeralis (Cazier) 1938a:12 (*Acmaeodera*).
Type locality: CA, San Bernardino Co., Amboy – Type depository: AMNH.
Taxonomy: Nelson 1968c.
Redescription: Nelson 1968c:143 (♂, ♀), fig. 12 (adult ♀); Akiyama & Ohmomo 2000: fig.161 (♂).
Ecology: Nelson 1968c (biol., distr.); Westcott 1991; 2001b (distr.); 2005 (distr.).
Distribution: **USA**: AZ, CA, NV, TX
Host(s): adults on flowers of *Eriogonum inflatum* Torr. & Frem., *Geraea canescens* Gray and *Palafoxia* sp.

insignis (Horn) 1894:377 (*Acmaeodera*).
Type locality: Mexico: Baja California, San Raymundo – Type depository: CASC 28 (♀).
Taxonomy: Van Dyke 1942; Nelson 1968c.
Redescription: Van Dyke 1942: plate 6, fig. 4 (adult); Nelson 1968c:130 (♂, ♀), fig. 3 (adult ♀).
Ecology: Nelson 1968c (biol., distr.).
Distribution: **USA**: CA; also recorded from Mexico.
Host(s): adults on flowers of *Nicolletia trifida* Rydb. and *Phacelia crenulata* Torr.

knulli Nelson 1968c:139 (♂, ♀), fig. 9 (adult ♀).
Type locality: CA, Riverside Co., North Palm Springs – Type depository: CASC 9830 (♀).
Taxonomy: Nelson 1968c.
Redescription: Akiyama & Ohomomo, 2000: fig. 162 (♂).
Ecology: Nelson 1968c (biol., distr.).
Distribution: **USA**: CA
Host(s): adults on flowers of *Eriogonum inflatum* Torr. & Frem.

rossi (Cazier) 1937:115 (*Acmaeodera*).
Type locality: CA, Holtville – Type depository: AMNH (♀).
synonym: *balli* (Knull) 1937d:302 (*Tyndaris*), fig. 1 (adult) – Synonymy: Van Dyke 1942:109.
Type locality: AZ, Congress Junction – Type despository: FMNH (♀).
Taxonomy: Nelson 1968c.
Redescription: Cobos 1955: figs. 8, 11, 14, 15, 18 (antenna, wing, ♂ genitalia, ovipositor); Nelson 1968c:141 (♂, ♀), fig. 10 (adult ♀).
Ecology: Nelson 1968c (biol., distr.); Walters 1978 (distr.); Westcott 2005 (distr.).
Distribution: **USA**: AZ, CA, NV
Host(s): adults on *Acacia* sp., *Cercidium floridum* Gray, *Ephedra* sp., *Eriogonum deserticola* S. Wats., *E. inflatum* Torr. & Frem., *Hyptis emoryi* Torr., *Larrea tridentata* (DC.) Cov., *Palafoxia* sp., *Prosopis* sp. and *Stephanomeria* sp.

rufescens Nelson 1968c:144 (♂, ♀), figs. 2, 13 (ovipositor, adult ♀).
Type locality: CA, Riverside Co., 5 mi W Indio –Type depository: CASC 9831 (♀).
Taxonomy: Nelson 1968c.
Redescription: Akiyama & Ohmomo 2000: fig. 164 (♀).
Ecology: Nelson 1968c (biol., distr.).
Distribution: **USA**: CA; also recorded from Mexico.
Host(s): adults on *Geraea canescens* T. & G., *Palafoxia* sp. and *Prosopis glandulosa* Torr.

stramineus Nelson 1968c:142 (♂, ♀), fig. 11 (adult ♀).
Type locality: CA, Imperial Co., 14 mi E Holtville – Type depository: CASC 9832 (♀).
Taxonomy: Nelson 1968c.
Redescription: Akiyama & Ohmomo 2000: fig. 166 (♀).
Ecology: Nelson 1968c; 1999 (biol.); MacRae 2006 (biol., distr.).
Distribution: **USA**: CA
Host(s): adults on flowers of *Eriogonum deserticola* S. Wats., *Palafoxia arida* B. Turner & ♂ Morris var. *gigantea* (♂E. Jones) B. Turner & M. Morris and *Tiquilia plicata* (Torr.) Richards.

verityi Nelson 1968c:133 (♂, ♀), fig. 4 (adult).
Type locality: CA, Riverside Co., above Palm Desert, 3500' – Type depository: CASC 9833 (♀).
Taxonomy: Nelson 1968c; 1999.

Redescription: Nelson 1999:375; Akiyama & Ohmomo 2000: fig.165 (♀).
Ecology: Nelson 1968c; 1987a (biol.); 1999 (biol., distr.).
Distribution: **USA**: CA
Host(s): adults on flowers of *Salvia apiana* Jeps. and *S. vaseyi* (Porter) Parish.

Subtribe Acmaeoderina Kerremans 1893
Acmaeoderites Kerremans 1893:113.
Type genus: *Acmaeodera* Eschscholtz 1829.
Classification: Kerremans 1893; 1902; 1906; Cobos 1955; 1980; Arnett 1962; Nelson 1982; Bellamy 1985; Bílý 1999a; Volkovitsh 2001; Kolíbác 2001; Bellamy & Nelson 2002; Bellamy 2003a; Davidson 2003.
Key(s): Kerremans 1902:27; Arnett 1962:485; Bellamy & Nelson 2002:102 (genera).

Genus *Acmaeodera* Eschscholtz 1829
Acmaeodera Eschscholtz 1829:9.
Type species: *Buprestis cylindrica* Fabricius 1775 (fixed by subsequent designation: Opinion 2100, ICZN 2005a:47).
Andromeda Gistel 1834:10 – Synonymy: Mannerheim 1837:24.
Type species: *Buprestis ornata* Fabricius 1775 (fixed by subsequent designation: Bellamy 2003a:16).
Taxonomy: Horn 1878 (revision); Fall 1899 (revision); Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Redescription: Bright 1987:32.
Ecology: Burke 1917a (biol.).
Key(s): Fall 1899:4 (USA); Barr 1971:83 (Pacific NW); Bright 1987:32 (Canada); Downie & Arnett 1996:738 (NE No. Amer.).

subgenus *Acmaeodera* (*Acmaeodera*) Eschscholtz 1829
Acmaeodera Eschscholtz 1829:9.
Type species: *Buprestis cylindrica* Fabricius 1775.

acanthicola Barr 1972:177.
Type locality: AZ, Cochise Co., 2 mi E Portal – Type depository: CASC 11485 (♂).
misidentification: *stigmata* of authors (in part), not *stigmata* Horn 1884
Taxonomy: Barr 1972b.
Redescription: Akiyama & Ohmomo 2000: fig. 213 (as *stigmata*).
Ecology: Barr 1972b; Westcott, *et al*. 1979 (biol., distr.).
Distribution: **USA**: AZ, CA; also recorded from Mexico.
Host(s): larvae in *Celtis ehrenbergia* (Klot.) Liebm.; adults also on *Acacia constricta* Benth., *A. greggii* Gray, *A. vernicosa* Standl. and *Cercidium floridum* Gray.
acuta LeConte 1860:224.
Type locality: CA, Fort Tejon – Type depository: MCZC 2723.
Ecology: Barr 1971 (biol., distr.); Westcott, *et al*. 1979.
Distribution: **USA**: CA, ID, NV, OR
Host(s): adults on *Achillea* sp., *Encelia actoni* Elmer, *Rosa* sp., *Salix* sp. and *Sphaeralcea* sp.
adenostomae Cazier 1938b:137 (♂, ♀).
Type locality: CA, Santa Barbara Co., Sunset Valley – Type depository: AMNH (♀).
Ecology: White 1939 (biol.).
Distribution: **USA**: CA
Host(s): adults on *Adenostoma fasciculatum* H. & A.
adenostomensis Knull 1941c:691.
Type locality: CA, Jacumba – Type depository: FMNH.
Ecology: Nelson 1965 (biol.); 1967a (distr.).
Distribution: **USA**: CA; also rcorded from Mexico.
Host(s): adults on *Adenostoma fasciculatum* H. & A. and *A. sparsifolium* Torr.
alacris Horn 1878:25.
Type locality: CA, near Fort Yuma – Type depository: MCZC 8033.

Taxonomy: Horn 1878; Fall 1899.
Ecology: Nelson 1967a; Westcott, *et al*. 1979 (biol., distr.).
Distribution: **USA**: CA; also recorded from Mexico.
Host(s): adults on *Cercidium plurifoliolatum* Michx. and *Prosopis* sp.

alicia Fall 1899:29.
Type locality: CA, Los Angeles Co. – Type depository: USNM 4189.
Taxonomy: Fall 1899.
Redescription: Akiyama & Ohmomo 2000: fig. 210.
Ecology: Knull 1937d; Westcott, *et al*. 1979; MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, CA; also recorded from Mexico.
Host(s): larvae in *Acacia willardiana* Rose and *Cercidium floridum* Gray; adults also on *Baileya pleniradiata* Gray, *Ferocactus wislizeni* (Engelm.) Britt. & Rose, *Hymenothrix* sp., *Larrea tridentata* (DC.) Cov., *Prosopis glandulosa* Torr. and *Sesbania exaltata* (Raf.) Cory.

alpina Barr 1972b:173.
Type locality: CA, Inyo Co., Big Pine Creek Cyn., Second Lake, 10040' – Type depository: CASC 11487 (♂).
Taxonomy: Barr 1972b.
Ecology: Barr 1972b (distr.); Westcott, *et al*. 1979 (biol.); Westcott 2005 (distr.); 2007b (biol., distr.).
Distribution: **USA**: CA, CO, NV, UT
Host(s): adults on *Poliomintha incana* (Torr.) Gray, *Leptodactylon pungens* (Torr.) Rydb. and ground.

amabilis Horn 1878:7.
Type locality: AZ – Type depository: MCZC 33807 (Lectotype not designated).
Taxonomy: Horn 1878; Fall 1899; Cazier 1940a; Barr 1975.
Redescription: Fall 1899:10.
Ecology: Burke 1917b (biol.); Westcott, *et al*. 1979; MacRae & Nelson 2003 (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, CO, NM, TX
Host(s): larvae in *Alnus incana* (L.) Moench ssp. *tenuifolia* (Nutt.) Breitung; adults also on *Baccharis salicifolia* (Ruiz & Pavon) Pers., *Bahia dissecta* (Gray) Britt., *Chrysothamnus* sp., *Glandularia gooddingii* (Briq.) Solbrig., *Machaeranthera gracilis* (Nutt.) Shinn., *Senecio macdougalii* Heller and *Viguiera longifolia* (Robins. & Greenm.) Blake.

amazonica Nonfried 1895 [syn. of *xanthosticta*]

amplicollis LeConte 1866:383.
Type locality: AZ, Fort Whipple – Type depository: MCZC 2719 (Lectotype not designated).
Taxonomy: Horn 1878; Fall 1899.
Redescription: Horn 1878:6, plate 1, fig. 1 (elytron); Cazier 1951b: fig. 7 (adult); Akiyama & Ohmomo 2000: fig. 202 (♂, ♀).
Distribution: **USA**: AZ, NM; also recorded from Mexico.
Ecology: Cazier 1951b (distr.); Westcott, *et al*. 1979; MacRae 2006 (biol., distr.).
Host(s): adults on *Baileya multiradiata* Gray, *Gaillardia pinnatifida* Torr., *Gutierrezia microcephala* (DC.) Gray, *Gymnosperma glutinosum* Less., *Helianthus nutallii* T. & G., *Heliopsis parvifolia* Gray, *Heterotheca subaxillaris* (Lam.) Britt. & Rusby, *Machaeranthera gracilis* (Nutt.) Shinn., *Senecio flaccidus* Less. and *Verbesina encelioides* (Cav.) Gray.

angelica Fall 1899:16.
Type locality: CA, Los Angeles Co. – Type depository: MCZC 24401 (Lectotype not designated).
Taxonomy: Fall 1899.
Redescription: White 1939: fig. 3 (ovipositor); Helfer 1970:91 fig. (adult).
Ecology: Burke 1917b; White 1939; Beer 1940; 1944 (biol.); Westcott, *et al*. 1979; Westcott 2001b; MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, CA, NV, OR, UT; also recorded from Mexico.
Host(s): larvae in *Ceanothus cuneatus* (Hook.) Nutt., *C. greggii* Gray var. *perplexans* (Trel.) Jeps., *C. integerrimus* H. & A., *C. oliganthus* Nutt., *Quercus douglasii* H. & A., *Q. john-tuckeri* K. Nixon & C.H. Muller and *Toxicodendron diversilobum* (T. & G.) Greene; adults also on *Cercocarpus betuloides* T. & G., *Fremontodendron californicum* (Torr.) Cov., *Phacelia imbricata* Greene, *Rhamnus tomentella* Benth. ssp. *cuspidata* (Greene) J.O. Sawyer and various flowers.

anthobia Obenberger 1924 [syn. of *obtusa*]
arizonae Horn 1878 [syn. of *mixta*]
atactospilota Westcott 1971b:7.
Type locality: CA, Los Angeles Co., near Littlerock – Type depository: CASC 9848 (♀).
Taxonomy: Westcott 1971b.
Ecology: Westcott 1971b; Westcott, *et al*. 1979 (biol.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, CA, NV, UT
Host(s): larvae in *Ephedra viridis* Cov.; adults also on *Ephedra nevadensis* S. Wats.; and flowers of *Acacia greggii* Gray, *Coreopsis bigelovii* (Gray) Hall, *Encelia farinosa* T. & G., *Eriogonum fasciculatum* (Benth) T. & G., *E. inflatum* Torr. & Frem., *Fallugia paradoxa* (D. Don) Endl., *Salvia dorii* (Kell.) Abrams, *Sphaeralcea rusbyi* Gray var. *eremicola* (Jeps.) Kearn., *Stephanomeria pauciflora* (Torr.) Nelson and *Viguiera reticulata* S. Wats.
audreyae Westcott & Barr 2007:56, fig. 3 (♂).
Type locality: 5 mi NW Ocotillo, Imperial Co., Calif. – Type depository: EMEC 69341 (♂).
Taxonomy: Westcott & Barr 2007.
Ecology: Westcott & Barr 2007.
Distribution: **USA**: CA
Host(s): adults on *Larrea tridentata* (DC.) Cov.
auritincta Fall 1922:88.
Type locality: TX, Culberson Co., Kent, 3900–4200' – Type depository: MCZC 24402.
Taxonomy: Fall 1922; Barr 1992:81 (syn. of *delectabilis* Waterhouse); Westcott 2007b (resurrection).
Redescription: Cazier 1951b: fig. 5.
Ecology: Cazier 1951b (distr.); Westcott, *et al*. 1979 (biol.); 2007b (distr.).
Distribution: **USA**: NM, TX; also recorded from Mexico.
Host(s): adults on *Psilostrophe* sp. and *Viguiera stenoloba* Blake.
aurora Fall 1922:88.
Type locality: CA, San Diego Co., Jacumba – Type depository: MCZC 24403.
Taxonomy: Westcott 2001b.
Ecology: Nelson 1960b; 1962 (biol.); Westcott 2001b (biol., distr.).
Distribution: **USA**: CA; also recorded from Mexico.
Host(s): adults on *Acacia greggii* Gray, *Eriogonum fasciculatum* (Benth.) T. & G. and *Juniperus californica* Carr.
bacchariphaga Westcott & Verity 1977:149.
Type locality: Mexico: BCN, 16.7 mi SE Santo Tomas, 150 m. – Type depository: CASC 12747 (♀).
Taxonomy: Westcott & Verity 1977.
Ecology: Westcott & Verity 1977 (biol., distr.).
Distribution: **USA**: CA; also recorded from Mexico: BCN.
Host(s): larvae in *Baccharis sarothroides* Gray; adults also on flowers of *Bebbia juncea* (Benth.) Greene; *Cirsium* sp., *Stephanomeria* sp. and dead twigs of *Hymenoclea monogyra* Gray.
bernardino Van Dyke 1937 [syn. of *mariposa dohrni*]
biedermani Skinner 1903 [syn. of *pubiventris lanata*]
bishopiana Fall 1907:240.
Type locality: CA, Inyo Co., Bishop – Type depository: MCZC 24404 (Lectotype not designated).
Taxonomy: Fall 1907.
Ecology: Beer 1944; Barr 1971 (biol., distr.); Westcott, *et al*. 1979 (biol.).
Distribution: **USA**: CA, ID, NV, OR
Host(s): larvae in *Atriplex canescens* (Pursh) Nutt. and *A. confertifolia* (Torr. & Frem.) S. Wats.; adults also on various flowers.
bisseptemguttata Marseul 1867 [syn. of *xanthosticta*]
bivulnera Horn 1894:371.
Type locality: AZ, near Tucson – Type depository: MCZC 33810 (Lectotype not designated).
Taxonomy: Fall 1899.
Redescription: Fall 1899:32; Cazier 1951b: fig. 24 (adult).
Ecology: Barr 1941a (biol., distr.); Cazier 1951b (distr.); Nelson 1959; Westcott, *et al*. 1979; Bellamy 1982 (biol.).
Distribution: **USA**: AZ, CA, NM; also recorded from Mexico.

Host(s): larvae in *Krameria grayi* Rose & Painter; adults also on *Acacia greggii* Gray, *Cercidium floridum* Gray, *Hymenoclea salsola* Gray, *Justicia californica* (Benth.) D. Gibson, *Larrea tridentata* (DC.) Cov. and *Prosopis glandulosa* Torr.

bouvieri Kerremans 1906 [syn. of *haemorrhoa*]

bowditchi Fall 1901:307.

Type locality: AZ, Prescott – Type depository: MCZC 24405 (Lectotype not designated).

misidentification: *connexa* of authors, not *connexa* LeConte 1859.

Redescription: Akiyama & Ohmomo 2000: fig. 206 (♂, ♀).

Ecology: Westcott, *et al*. 1979; 2001b; MacRae 2006 (biol., distr.).

Distribution: **USA**: AZ, NM, NV, TX

Host(s): larvae in dead branches of *Quercus pungens* Liebm. var. *vaseyana* (Buckl.) C.H. Muller.; adults also on flowers of cactus, *Erigeron traceyi* Greene, *Eriogonum fasciculatum* (Benth.) T. & G., *Melampodium leucanthum* T. & G., *Sphaeralcea* sp. and *Tetraneuris scaposa* (DC.) Greene var. *scaposa*.

bryanti Van Dyke 1953:104.

Type locality: TX, Del Rio – Type depository: CASC 8121.

Distribution: **USA**: TX

Host(s): unknown.

carlota Fall 1932:81.

Type locality: AZ, wheatfields near Globe – Type depository: MCZC 24406.

Taxonomy: Fall 1932.

Ecology: Westcott, *et al*. 1979 (biol.).

Distribution: **USA**: AZ

Host(s): adults on flowers of cactus, *Eriogonum fasciculatum* (Benth.) T. & G., *Melampodium leucanthum* T. & G. and *Sphaeralcea* sp.

cazieri Knull 1960a:6 (♂, ♀), fig. 1 (adult) (as subspecies of *quadrivittata*).

Type locality: AZ, Cochise Co., Chiricahua Mtns. – Type depository: FMNH (♂).

Taxonomy: MacRae & Nelson 2003.

Ecology: Knull 1960a; MacRae & Nelson 2003 (biol.).

Distribution: **USA**: AZ

Host(s): adults on flowers of *Allionia incarnata* L., *Argemone* sp., *Boerhavia* sp., *Cirsium* sp., *Jatropha macrorhiza* Benth.; also landing on white areas of cans.

ceanothae Nelson 1967b:57 (♂, ♀).

Type locality: AZ, Yavapai Co., Yarnell – Type depository: CASC 9317 (♂).

Taxonomy: Nelson 1967b.

Ecology: Nelson 1967b; Westcott, *et al*. 1979 (biol.).

Distribution: **USA**: AZ

Host(s): adults on *Ceanothus* sp. and *Quercus turbinella* Greene.

chiricahuae Barr 1972b:146, fig. 1 (adult).

Type locality: AZ, Cochise Co., 5 mi W Portal – Type depository: CASC 11488 (♂).

Taxonomy: Barr 1972b.

Ecology: Barr 1972b (biol., distr.).

Distribution: **USA**: AZ

Host(s): adults on flowers of *Artemisia* sp., *Cirsium* sp., *Heliopsis parvifolia* Gray, *Heterotheca subaxillaris* (Lam.) Britt. & Rusby and *Verbesina encelioides* (Cav.) Gray.

comata LeConte 1858:70.

Type locality: AZ, Colorado R. below the Gila – Type depository: MCZC 2734.

misspelling: *conata* (error for *comata*, *nomen nudum*).

Redescription: Horn 1878: fig. 39 (elytron).

Ecology: Westcott, *et al*. 1979 (biol.); Westcott 2001b (distr.).

Distribution: **USA**: AZ, CA, NM; also recorded from Mexico.

Host(s): larvae in *Prosopis glandulosa*Torr.

condita Barr 1972b:171, fig.11 (adult).

Type locality: NV, Clark Co., Kyle Cyn. – Type depository: CASC 11490 (♂).

misidentification: *inyoensis* of authors, not *inyoensis* Cazier 1940.

Taxonomy: Barr 1972b.

Ecology: Barr 1972b; MacRae 2006 (biol., distr.).
Distribution: **USA**: NV
Host(s): adults on flowers of *Eriodictyon* sp., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh and *Rosa* sp.

confusa Fisher 1925 [syn. of *xanthosticta*]

connexa LeConte 1859:71.
Type locality: CA, Fort Tejon – Type depository: MCZC 2722 (Lectotype not designated).
Taxonomy: Horn 1878; Fall 1899.
Redescription: Horn 1878:13, plate 1, fig. 13 (elytron); Fall 1899:22; Barr 1971: plate 8, fig. 5 (adult); Akiyama & Ohmomo 2000: fig. 205 (♂, ♀).
Ecology: Chamberlin 1917; Burke 1917b; White 1939; Beer 1940; Tilden 1955; Westcott, *et al.* 1979 (biol.); MacRae 2006 (biol., distr.).
Distribution: **USA**: CA, NV, OR, WA
Host(s): larvae in *Quercus garryana* Hook. and *Q. wislizeni* A. DC.; adults also on dead branches of *Cercocarpus betuloides* Nutt.; and on flowers of *Encelia actoni* Elmer, *Erigeron* sp., *Eriodictyon* sp., *Rosa* sp., *Salvia* sp. and *Sphaeralcea ambigua* Gray.

conoidea Fall 1899:31.
Type locality: AZ – Type depository: MCZC? ANSP 8193 (type is lost).
Taxonomy: Fall 1899; Cazier 1940a.
Ecology: Westcott, *et al.* 1979; Westcott, *et al.* 1991 (distr.); MacRae & Nelson 2003 (biol.).
Distribution: **USA**: AZ, NM, TX
Host(s): larvae in *Celtis laevigata* Willd. var. *reticulata* (Torr.) L. Benson, *Juglans* sp. and *Ulmus crassifolia* Nutt.; adults also on flowers of *Cirsium* sp., *Erigeron divergens* T. & G., *Fallugia paradoxa* (D. Don) Endl., *Diospyros texana* Scheele and *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh.

consors Horn 1878:20, plate 1, fig. 30 (elytron).
Type locality: TX – Type depository: MCZC 8031.
synonym: *perforata* Cazier 1940a:17 - Synonymy: Westcott 2007b:33.
Type locality: TX, New Braunfels – Type depository: AMNH (♂).
Taxonomy: Horn 1878; Fall 1899; Cazier 1940a; Westcott 2007b.
Distribution: **USA**: TX
Host(s): unknown.

constrictinotum Westcott & Nelson 2000:305 (♀): figs. 2, 4, 5, 8, 9 (holotype, ovipositor, ♂ genitalia).
Type locality: CA, San Bernardino Co., Clark Mt., 1860–1950 m, Sec. 33, T17 N, R13 E – Type depository: CASC 17762 (♀).
Taxonomy: Westcott & Nelson 2000.
Ecology: Westcott & Nelson 2000 (biol., distr.); Westcott 2005 (biol., distr.).
Distribution: **USA**: CA, NV
Host(s): adults on *Chrysothamnus nauseosa* (Pall.) Britt., *Eriodictyon californicum* (Hook. & Arn.) Torrey, *Prunus fasciculata* (Torr.) Gray and *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh.

convicta Fall 1899:11.
Type locality: AZ, Santa Rita Mtns. – Type depository: USNM 55857.
synonym: *papagonis* Duncan 1934:231 – Synonymy: Barr 1975:412.
Type locality: AZ, Baboquivari Mtns., El Oro Cyn., 4000' – Type depository: AMNH.
Taxonomy: Fall 1899; Barr 1975.
Ecology: Westcott, *et al.* 1979 (distr.); Bellamy 1982 (biol.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): adults beaten from dead branches of *Prosopis glandulosa* Torr.; and on flowers of *Allionia incarnata* L. and *Boerhavia coccinea* Mill.

coquilletti Fall 1899:15.
Type locality: CA, Los Angeles Co. – Type depository: MCZC 24407 (Lectotype not designated).
Taxonomy: Fall 1899.
Redescription: White 1939: fig. 1 (ovipositor).
Ecology: White 1939; Tilden 1955; Bellamy 1982 (biol.).
Distribution: **USA**: CA

Host(s): adults on *Ceanothus crassifolius* Torr., *Eriogonum fasciculatum* (Benth.), T. & G., *Lotus scoparius* (Nutt.) Ottley, *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.) and *Q. wislizeni* A. DC.

cribricollis Horn 1894:375, plate 8, fig. 4 (adult).
Type locality: TX – Type depository: MCZC 33812.
synonym: *larreae* Fall 1907:241 – Synonymy: Cazier 1940a:27.
Type locality: CA: Mojave – Type depository: MCZC 24417.
Taxonomy: Fall 1899; Cazier 1940a.
Ecology: Burke 1918a (biol. as *larreae*); Hurd & Linsley 1975 (biol.); Westcott, *et al.* 1979; Davidson & Davidson 2005 (biol., distr.).
Distribution: **USA**: AZ, CA, NM, TX; also recorded from Mexico.
Host(s): larvae in *Larrea tridentata* (DC.) Cov.; adults also on flowers of *Prosopis glandulosa* Torr. var. *torreyana* (L. Benson) Johnston.

culta (Weber) 1801 [syn. of *tubulus*]

cuneata Fall 1899:21.
Type locality: AZ, Tempe Desert. – Type depository: MCZC 24408 ANSP 8192 (Lectotype not designated).
Taxonomy: Fall 1899.
Ecology: Burke 1917b (biol.); Westcott 2001b; MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, NV, TX
Host(s): larvae in *Alnus incana* (L.) Moench ssp. *tenuifolia* (Nutt.) Breitung; adults also on flowers of *Encelia farinosa* T. & G., *Eriodictyon angustifolium* Nutt., *Fallugia paradoxa* (D. Don.) Endl., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh, *Senecio* sp. and *Sphaeralcea* sp.

curtilata Knull 1941:692, plate 1, fig. 2 (adult).
Type locality: CA, Morongo Valley – Type depository: FMNH.
Ecology: Nelson 1959 (biol.).
Distribution: **USA**: CA
Host(s): adults on *Psorothamnus arborescens* (Gray) Barneby var. *simplicifolius* (Parish) Barneby.

daggetti Fall 1899 [syn. of *solitaria*]

davidsoni Barr 1972b:179.
Type locality: NM, Hidalgo Co., Peloncillo Mtns., Granite Gap – Type depository: CASC 11491 (♂).
Taxonomy: Barr 1972b.
Ecology: Barr 1972b (biol., distr.); Westcott, *et al.* 1979 (distr.); Bellamy 1982 (biol.).
Distribution: **USA**: AZ, NM, TX; also recorded from Mexico.
Host(s): adults on *Acacia constricta* Benth., *A. greggii* Gray and *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby.

decipiens LeConte 1866:383.
Type locality: AZ – Type depository: MCZC 2725.
synonym: *durangana* Obenberger 1928:120 – Synonymy: Barr 1975:412.
Type locality: Mexico, Durango – Type depository: NMPC 19693.
Taxonomy: Horn 1878; Fall 1899; Barr 1975.
Redescription: Horn 1878: fig. 17 (elytron); Akiyama & Ohmomo 2000: fig. 209.
Ecology: Westcott, *et al.* 1979 (biol., distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): adults on various flowers.

delumbis Horn 1894:378.
Type locality: AZ – Type depository: MCZC 33814 (Lectotype not designated).
Taxonomy: Fall 1899; Duncan 1934a; Cazier 1940a.
Redescription: Cazier 1951b: fig. 2 (adult).
Ecology: Cazier 1951b; Westcott, *et al.* 1979 (distr.); Davidson & Davidson 2005; MacRae 2006 (distr. & biol.).
Distribution: **USA**: AZ, NM, TX; also recorded from Mexico.
Host(s): larvae in *Prosopis glandulosa* Torr. and *Acacia constricta* Benth.; adults also on *A. greggii* Gray, *Condalia spathulata* Gray and "squawbush".

depressa Barr 1972b:162, fig. 8 (adult).

Type locality: AZ, Maricopa Co., Morristown – Type depository: CASC 11492 (♂).
Taxonomy: Barr 1972b.
Ecology: Barr 1972b; MacRae & Nelson 2003 (biol., distr.); Westcott 2005 (biol., distr.); 2007b (biol.).
Distribution: **USA**: AZ, CA, NV, UT
Host(s): larvae in *Bursera microphylla* Gray, *Fouquieria splendens* Engelm., *Hyptis emoryi* Torrey; adults also on flowers of *Encelia* sp., *Eriodictyon angustifolium* Nutt., *Eriodictyon californicum* (Hook. & Arn.) Torrey, *Fallugia paradoxa* (D. Don) Endl., *Melampodium leucanthum* T. & G., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh and *Sphaeralcea* sp.

deviata Barr 1972b:151, fig. 3 (adult).
Type locality: CA, San Bernardino Co., Desert Springs (Pinyon Hills) – Type depository: CASC 11493 (♂).
Taxonomy: Barr 1972b.
Ecology: Barr 1972b; MacRae 2006 (biol., distr.).
Distribution: **USA**: CA; also recorded from Mexico.
Host(s): larvae in *Juniperus californica* Carr.; adults also on flowers of cactus, *Encelia* sp., *Eriogonum fasciculatum* (Benth.) T. & G., *Salvia apiana* Jeps., *S. dorrii* (Kell.) Abrams and *Sphaeralcea ambigua* Gray.

diffusa Barr 1969:13, fig. 1 (adult).
Type locality: NV, Lincoln Co., Highland Range, above Mendha – Type depository: CASC 10221 (♂).
misidentification: *hepburnii* of authors, not *hepburnii* LeConte 1860.
misidentification: *variegata* of authors, not *variegata* LeConte 1852.
Taxonomy: Barr 1969a.
Ecology: Barr 1969a (biol., distr.); Westcott 1991 (distr.).
Distribution: **USA**: AZ, CA, CO, NM, NV, UT
Host(s): adults on flowers of *Calochortus* sp., *Chaenactis* sp., *Garrya* sp., *Heliomeris multiflora* Nutt., *Opuntia* sp. and *Sphaeralcea* sp.

discalis Cazier 1940a:24.
Type locality: AZ, Gila Co., Pinal Mtns. – Type depository: AMNH (♂).
Taxonomy: Cazier 1940a; Nelson 1980b.
Redescription: Cazier 1951b: fig. 19 (adult); Nelson 1980b:179 (♀), figs. 1, 3 (adult, ovipositor).
Ecology: Cazier 1951b (distr.); Nelson 1980b (biol., distr.).
Distribution: **USA**: AZ
Host(s): adults on lavender Asteraceae; also landing on rocks.

disjuncta Fall 1899:9.
Type locality: AZ – Type depository: MCZC 24410 ANSP 8194 (Lectotype not designated).
Taxonomy: Fall 1899.
Redescription: Cazier 1951b: fig. 10 (adult).
Ecology: Cazier 1951b (distr.); Westcott, *et al*. 1979; Westcott 1991 (biol.).
Distribution: **USA**: AZ, NM; also recorded from Mexico.
Host(s): larvae in *Fouquieria splendens* Engelm.; adults also on flowers of *Baileya multiradiata* Gray, *Chrysothamnus nauseosus* (Pall.) Britt., *Gutierrezia microcephala* (DC.) Gray, *Helianthus petiolaris* Nutt. and *Verbesina encelioides* (Cav.) Gray.

dispar Gory 1840 [syn. of *ornata*]

distincta Kerremans 1902 [syn. of *variegata*]

dohrni Horn 1878 [ssp. of *mariposa*]

dolorosa dolorosa Fall 1899:25.
Type locality: CA, Los Angeles Co. – Type depository: MCZC 24411 (Lectotype not designated).
misidentification: *fenyesi* of authors, not *fenyesi* Fall 1899.
Taxonomy: Fall 1899; Barr 1975.
Ecology: Beer 1944 (as *fenyesi*); Nelson 1962 (distr.); Westcott, *et al*. 1979 (biol.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, CA, OR
Host(s): larvae in *Arctostaphylos viscida* Parry, *Prunus fasciculata* (Torr.) Gray and *Simmondsia chinensis* (Link) C. Schneid.; adults also on flowers of *Eriophyllum lanatum* (Pursh) James Forbes

var. *achillaeoides* (DC.) Jeps., *E. l.* var. *grandiflorum* (Gray) Jeps., *Eriodictyon californicum* (H. & A.) Torr. and *E. ichocalyx* Heller.

dolorosa liberta Fall 1922:89.
Type locality: CA, Independence – Type depository: MCZC 24419.
Taxonomy: Barr 1975.
Ecology: Barr 1975; Westcott, *et al.* 1979 (distr.).
Distribution: **USA**: CA, NV, OR
Host(s): adults on flowers *Encelia actoni* Elmer.

duboisi Cazier 1938 [syn. of *tuta*]

durangana Obenberger 1928 [syn. of *decipens*]

eburna Van Dyke 1949 [syn. of *immaculata*]

errans Barr 1972b:170, fig. 10 (adult).
Type locality: NV, Clark Co., Kyle Cyn. – Type depository: CASC 11494 (♂).
Taxonomy: Barr 1972b.
Ecology: Barr 1972b; Westcott 2001b (biol., distr.).
Distribution: **USA**: NV, UT
Host(s): adults on flowers *Psoralea* sp. and *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh.

falli Kerremans 1902 [syn. of *flavopicta*]

fattigi Knull 1953:144, fig. 1 (adult).
Type locality: CA, San Diego Co., Jacumba – Type depository: FMNH (♀).
Taxonomy: Knull 1953.
Ecology: Nelson 1965 (biol.).
Distribution: **USA**: CA
Host(s): larvae in *Acacia greggii* Gray.

fenyesi Fall 1899:12.
Type locality: southern CA, Riverside – Type depository: MCZC 24413 (Lectotype not designated).
Taxonomy: Fall 1899.
Ecology: Nelson 1987a (biol.).
Distribution: **USA**: CA; also recorded from Mexico.
Host(s): larvae in *Lotus scoparius* (Nutt.) Ottley; adults also on *L. rigidus* (Benth.) Greene and *Quercus* sp.

fisheri Cazier 1940 [syn. of *vanduzeei*]

flavinigrapunctata Knull 1928 [syn. of *princeps*]

flavomarginata (Gray) 1832:358 (*Buprestis*), plate 31, fig.2 (adult).
Type locality: Brazil – Type depository: OXUM COLE1019.
Taxonomy: Horn 1878; Fall 1899.
Redescription: Horn 1878:8, plate 1, fig. 4 (elytron); Fall 1899:8; Cazier 1951b: fig. 3 (adult); Akiyama & Ohmomo 2000: fig.201.
Ecology: Vogt 1949b; Cazier 1951b; Westcott, *et al.* 1990 (distr.); Westcott 2001b; MacRae 2006 (biol., distr.); Wellso & Jackman 2006 (biol.).
Distribution: **USA**: TX; also recorded from Mexico, Central and South America.
Host(s): larvae in *Acacia rigidula* Benth., *Diospyros texana* Scheele and *Prosopis glandulosa* Torr.; adults also on flowers of *Helianthus annuus* L. and other Asteraceae.

flavopicta Waterhouse 1889:180 (replacement name for *flavosticta* Waterhouse 1882).
synonym: *flavosticta* Waterhouse 1882:24, plate 2, fig. 13 (adult) (preoccupied: *flavosticta* Horn 1878).
Type locality: Mexico – Type depository: BMNH (Lectotype not designated).
synonym: *subcyanea* Fall 1899:8 (preoccupied: *subcyanea* Reitter 1890) – Synonymy: Obenberger 1926a:75.
Type locality: AZ – Type depository: ANSP 8195.
synonym: *falli* Kerremans 1902:34 (replacement name for *subcyanea* Fall 1899) – Synonymy: Cazier 1951b:23.
Redescription: Cazier 1951b: fig. 6 (adult).
Ecology: Cazier 1951b; Westcott, *et al.* 1979; Westcott 1990a (distr.).
Distribution: **USA**: AZ, NM, TX; also recorded from Mexico.
Host(s): adults on *Flourensia cernua* DC. and on flowers of Asteraceae.

flavosignata Gory 1840 [syn. of *pulchella*]
flavosticta Waterhouse 1882 [syn. of *flavopicta*]
gibbula LeConte 1858:69.
Type locality: San Diego to El Paso – Type depository: MCZC 2733 (Lectotype not designated).
synonym: *gila* Knull 1930b:16 (as subspecies of *gibbula*) – Synonymy: Westcott & Barr 1998:55.
Type locality: AZ, Gila R. Valley, San Carlos. – Type depository: FMNH.
Taxonomy: Horn 1878; Fall 1899.
Redescription: Horn 1878:24, fig. 38 (elytron); Cazier 1951b: fig. 1 (adult); Akiyama & Ohmomo 2000: fig.203 (♂, ♀).
Ecology: Knull 1937d; Vogt 1949b; Cazier 1951b (distr.); Westcott, *et al*. 1979; Nelson & MacRae 1990 (biol.); Davidson & Davidson 2005; MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, CA, NM, TX, UT; also recorded from Mexico.
Host(s): larvae in *Acacia greggii* Gray, *Cercidium floridum* Gray, *Olneya tesota* Gray, *Parkinsonia aculeata* L., *Prosopis* glandulosa Torr. and *Salix gooddingii* Ball; adults also on *Bahia absynthifolia* Benth., *B. pedata* Gray, *Engelmannia peristenia* (Raf.) Goodman & Lawson, *Leucophyllum frutescens* (Berl.) I.♂ Johnst., *Ratibida columnaris* (Sims.) D. Don and *Ziziphus obtusifolia* (T. & G.) Gray.
gila Knull 1930 [syn. of *gibbula*]
gillespiensis Knull 1941a:98.
Type locality: TX, Gillespie Co. – Type depository: FMNH (♀).
Taxonomy: Knull 1941a.
Ecology: Westcott, *et al*. 1979; MacRae 2006 (biol., distr.); Wellso & Jackman 2006 (biol.).
Distribution: **USA**: TX
Host(s): larvae in *Quercus* sp.; adults also on flowers of *Argemone* sp., *Baileya multiradiata* Gray, *Convolvulus equitans* Benth., *Erigeron traceyi* Greene, *Helenium armatum* (Raf.) H. Rock var. *badium* (Gray ex S. Wats.) Waterfall, *Opuntia imbricata* (Haw.) DC., *Ratibida columnaris* (Sims.) D. Don, *Sphaeralcea* sp., *Tetraneuris linearifolia* (Hook.) Greene, *T. scaposa* (DC.) Greene var. *scaposa*, *Thelesperma simplicifolium* Gray, *Vernonia marginata* (Torr.) Raf. and *Xanthisma* sp.
griffithi Fall 1899:36.
Type locality: AZ, Tempe Desert – Type depository: MCZC 24414 (Lectotype not designated).
Ecology: Nelson 1965; Westcott, *et al*. 1979 (biol.).
Distribution: **USA**: AZ
Host(s): adults on *Acacia greggii* Gray, *Cercidium* sp., *Olneya tesota* Gray and *Prosopis glandulosa* Torr.
haemorrhoa LeConte 1858:69.
Type locality: TX, Laredo to Ringgold Barracks – Type depository: MCZC 2726 (Lectotype not designated).
synonym: *bouvieri* Kerremans 1906:120 – Synonymy: Westcott 2005:7.
Type locality: Mexico – Type depository: MNHN (Lectotype not designated).
misidentification: *rubronotata* of authors, not *rubronotata* Laporte & Gory 1835.
misidentification: *stellaris* of authors, not *stellaris* Chevrolat 1835.
Taxonomy: Horn 1878 (as *stellaris*); Barr 1975.
Redescription: Horn 1878:14, fig. 18 (as *stellaris*); Cazier 1951b: fig. 12 adult as *rubronotata*).
Ecology: Vogt 1949b; Cazier 1951b; Westcott, *et al*. 1979 (biol.); MacRae 2006 (distr. & biol. as *rubronotata*).
Distribution: **USA**: TX; also recorded from Mexico.
Host(s): adults on flowers of *Helianthus annuus* L., *Tithonia rotundifolia* (Mill.) Blake and *Viguiera stenoloba* Blake.
hepburnii LeConte 1860:254.
Type locality: CA – Type depository: MCZC 2721.
Taxonomy: Horn 1878; Fall 1899.
Redescription: Horn 1878:12, plate 1, fig. 12 (elytron); Fall 1899:17; Akiyama & Ohmomo 2000: fig. 207 (♂, ♀).
Ecology: Burke 1917b; Chamberlin 1917; White 1939; Beer 1944; Tilden 1955 (biol.); Nelson 1962; Westcott, *et al*. 1979; MacRae 2006 (biol., distr.).
Distribution: **USA**: CA, OR; also recorded from Mexico.

Host(s): larvae in *Ceanothus spp., Pyrus communis* L., *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.), *Q douglasii* H. & A., *Q. garryana* Hook. and *Q.wislizeni* A. DC.; adults also on dead branches of *Fremontodendron californicum* (Torr.) Cov.; and on flowers of *Achillea* sp., *Baeria* sp., *Castilleja lineariloba* (Benth.) Chuang & Heckard, *Encelia actonii* Elmer, *Erigeron foliosus* Nutt. var. *hartwegii* (Greene) Jeps., *Eriodictyon californium* (H. & A.) Torr., *E. trichocalyx* Heller, *E. traskiae* Eastw., *Eriophyllum confertiflorum* (DC.) Gray, *E. lanatum* (Pursh) James Forbes, *Gilia capitata* Sims. and *Helianthus gracilentus* Gray.

holsteni White 1939:71 (♂, ♀), fig. 2 (ovipositor).
Type locality: CA, Santa Barbara Co., Sunset Valley – Type depository: CASC 8124 (♀).
Taxonomy: White 1939.
Ecology: White 1939 (biol., distr.); Bellamy 1982 (biol.).
Distribution: **USA**: CA
Host(s): larvae in *Adenostoma fasciculatum* H. & A.; adults also on *Arctostaphylos* sp., *Eriogonum fasciculatum* (Benth.) T. & G. and *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.).

horni Fall 1899:25.
Type locality: AZ – Type depository: ANSP 8179.
Taxonomy: Fall 1899; Westcott & Bellamy 2004.
Redescription: Westcott & Bellamy 2004:2, figs. 1, 2.
Ecology: Westcott & Bellamy 2004 (biol., distr.).
Distribution: **USA**: AZ
Host(s): adults on *Quercus arizonicus* Sarg. and *Q. emoryi* Torr.

idahoensis Barr 1969c:331.
Type locality: ID, Nez Perce Co, Spalding – Type depository: CASC 10220 (♂).
misidentification: *variegata* of authors, not *variegata* LeConte 1852.
Taxonomy: Barr 1969c; Bright 1987.
Redescription: Bright 1987:39.
Ecology: Beer 1944; 1949 (both as *variegata*); Barr 1971; Westcott, *et al.* 1979 (biol.); Bright 1987; MacRae 2006 (biol., distr.).
Distribution: **Canada**: BC; **USA**: CA, ID, MT, NV, OR, UT, WA, WY
Host(s): larvae in *Celtis occidentalis* L., *Cercocarpus ledifolius* Nutt., *Crataegus douglasii* Lindl. and *Quercus garryana* Hook.; adults also on flowers of the following genera: *Achillea, Agoseris, Balsamorhiza, Chaenactius, Eriophyllum, Erysimum, Mimulus, Prunus, Rosa, Senecio, Taraxacum* and *Wyethia*.

immaculata Horn 1878:19 (as variety of *pulchella*).
Type locality: Owens Valley, CA – Type depository: MCZC 33804 (Lectotype not designated).
synonym: *eburna* Van Dyke 1949:53 (as subspecies of *lucia* Fall) – Synonymy: Barr 1975:413.
Type locality: CA, 25 mi E Baker – Type depository: CASC 6105.
Taxonomy: Barr 1975.
Ecology: Barr 1969a; Westcott 1991 (biol., distr.); 2001b (distr.).
Distribution: **USA**: AZ, CA, CO, ID, MT, NV, SD, UT, WY
Host(s): larvae in Roots of *Krascheninnikovia lanata* (Pursh) A.D.J. Meeuse & Smit.; adults also on flowers *Opuntia polyacantha* Haw. and *Sarcobatus vermiculatus* (Hook.) Torr.

inopinata Barr 1972b:149, fig. 2 (adult).
Type locality: CA, Los Angeles Co., Tanbark Flat – Type depository: CASC 11495 (♂).
Taxonomy: Barr 1972b.
Ecology: Barr 1972b (biol., distr.).
Distribution: **USA**: CA
Host(s): larvae in *Ericameria pinifolia* (Gray) H. ♂ Hall; adults also on flowers *Salvia apiana* Jeps.

interrupta Kerremans 1897 [syn. of *solitaria*]

inyoensis Cazier 1940a:18.
Type locality: CA, Inyo Co., Panamint Mtns. – Type depository: AMNH.
Taxonomy: Cazier 1940a; Westcott & Nelson 2000.
Redescription: Westcott & Nelson 2000: figs. 6, 7 (ovipositor).
Ecology: Barr 1941a (biol., distr.).
Distribution: **USA**: CA

Host(s): adults on flowers of *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh.

jocosa Fall 1899:14.

Type locality: CA, Los Angeles Co., Mt. Wilson – Type depository: MCZC 24415 (Lectotype not designated).

Taxonomy: Fall 1899.

Ecology: White 1939; Barr 1941a; Tilden 1955 (biol.); Nelson 1962 (distr.).

Distribution: **USA**: CA; also recorded from Mexico.

Host(s): adults on *Adenostoma fasciculatum* H. & A.

knowltoni Barr 1969c:328.

Type locality: UT, Juab Co., Mt. Nebo, Bear Creek Camp – Type depository: CASC 10219 (♂).

Taxonomy: Barr 1969c.

Ecology: Barr 1969c; 1971 (biol., distr.).

Distribution: **USA**: AZ, ID, NV, UT

Host(s): adults on *Chrysothamnus nauseosa* (Pall.) Britt.; also on flowers of *Calochortus* sp., *Cirsium undulatum* (Nutt.) Spreng, *Helianthus nuttallii* T. & G., *Mimulus guttatus* DC., *Penstemon cyananthus* Hook., *Rhus trilobata* T. & G., *Rosa* sp. and *Senecio intergerrimus* Nutt.

knullorum Barr 1972b:155, fig. 5 (adult).

Type locality: CA, San Jacinto Mtns., Pinyon Flat – Type depository: CASC 11496 (♂).

Taxonomy: Barr 1972b.

Ecology: Barr 1972b (biol., distr.).

Distribution: **USA**: CA

Host(s): adults on *Quercus berberidifolia* Liebm. (misapplied to *Q dumosa* Nutt.).; also on flowers of *Acacia greggii* Gray, *Eriogonum fasciculatum* (Benth.) T. & G. *Purshia tridentata* (Pursh) DC. var. *glandulosa* (Curran) M. E. Jones and *Sphaeralcea ambigua* Gray.

labyrinthica Fall 1899:21.

Type locality: CA, Tuolomne Co. – Type depository: MCZC 24416 ANSP 8205 (Lectotype not designated).

Taxonomy: Fall 1899.

Ecology: Beer 1944; Barr 1971 (biol., distr.); Westcott, *et al.* 1979; Bellamy 1982; Westcott 1991 (biol.).

Distribution: **USA**: AZ, CA, NV, OR, UT

Host(s): larvae in *Quercus garryana* Hook. and *Umbellularia californica* (H. & A.) Nutt.; adults also on flowers of *Chaenactis fremontii* Gray, *Encelia actoni* Elmer, *E. farinosa* T. & G. and *Eriophyllum lanatum* (Pursh) James Forbes.

lanata Horn 1880 [ssp. of *pubiventris*]

larreae Fall 1907 [syn. of *cribricollis*]

laticollis Kerremans 1902:28.

Type locality: USA – Type depository: BMNH.

Taxonomy: Barr 1975.

Distribution: USA

Host(s): unknown.

latiflava latiflava Fall 1907:240 (as variety of *hepburnii*).

Type locality: S. CA – Type depository: MCZC 24418 (Lectotype not designated).

synonym: *pallidula* Kerremans 1910:269 – Synonymy: Théry 1926:42.

Type locality: CA – Type depository: MNHN.

Taxonomy: Barr 1975.

Ecology: Lindahl 1935; Knull 1947c; Beer 1949; Nelson 1962 (distr.); Westcott, *et al.* 1979 (biol., distr.); Westcott, 2001b (biol.).

Distribution: **USA**: AZ, CA, NV

Host(s): larvae in flower stalks of *Agave deserti* Engelm., *Yucca brevifolia* Engelm., *Y. schidigera* Ortgies and *Y. whipplei* Torr.; adults also on *Adenostoma* sp., *Baileya* sp., *Encelia* sp., *Eriodictyon trichocalyx* Heller, *Falugia paradoxa* (D. Don) Endl., *Helianthus gracilentus* Gray, *Melampodium leucanthum* T. & G., *Opuntia* sp., *Salvia apiana* Jeps., *S. vaseyi* (Porter) Parrish, *Sphaeralcea ambigua* Gray, *Stephanomeria pauciflora* (Torr.) Nelson and *Viguiera parishii* Greene.

latiflava lineipicta Fall 1932:81 (as species).

Type locality: AZ, near Globe, San Carlos Lake – Type depository: MCZC 24420.

Taxonomy: Cazier 1940a.
Ecology: Westcott, *et al*. 1979 (biol.).
Distribution: **USA**: AZ
Host(s): larvae in flower stalks of *Dasylirion wheeleri* S. Wats.; adults also on flowers of *Sphaeralcea* sp.

ligulata Cazier 1940a:20.
Type locality: AZ, Globe, San Carlos Lake – Type depository: AMNH.
Taxonomy: Cazier 1940a.
Ecology: Cazier 1940a; Westcott, *et al*. 1979 (biol.); Westcott 1991; 2001b (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, NM, NV, UT
Host(s): larvae in *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.) and *Q. pungens* Liebm.; adults also on flowers of *Echinocereus* sp., *Fallugia paradoxa* (D. Don) Endl., *Opuntia* sp., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh, *Sphaeralcea* sp. and *Tetraneuris linearifolia* (Hook.) Greene.

linsleyi Van Dyke 1943:101.
Type locality: CA, Riverside Co., San Jacinto Mtns., Pinyon Flat – Type depository: CASC 5336.
Taxonomy: Van Dyke 1943.
Ecology: Van Dyke 1943; Nelson 1962 (biol.); MacRae 2006 (biol., distr.).
Distribution: **USA**: CA
Host(s): larvae in *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.); adults also on flowers of *Encelia actoni* Elmer, *Eriogonum fasciculatum* (Benth.) T. & G. var. *foliolosum* (Nutt.) Abrams, *Salvia apiana* Jeps. and *Sphaeralcea emoryi* Torr. ex Gray.

lucia Fall 1901 [syn. of *variegata*]

lupinae Nelson 1996b:176, figs. 1–3 (adult, ♂ genitalia, ovipositor).
Type locality: CA, San Bernardino Co., San Gabriel Mtns., 2 mi E Wrightwood – Type depository: CASC 17418 (♂).
Taxonomy: Nelson 1996b.
Ecology: Nelson 1996b; Westcott 2001b (biol., distr.).
Distribution: **USA**: CA, CO, NV, UT
Host(s): adults on flowers of *Cryptantha flavoculata* (Nelson.) Payson, *Encelia actoni* Elmer, *Eriodictyon crassifolium* Benth., *Eriogonum* sp., *Lupinus excubitus* M. E. Jones, *L. formosus* Greene and *L. odoratus* Heller.

macra Horn 1878:8, plate 1, fig. 5 (elytron).
Type locality: TX – Type depository: MCZC 8022 (Lectotype not designated).
Taxonomy: Horn 1878; Fall 1899.
Redescription: Fall 1899:10.
Ecology: Vogt 1949b; Westcott, *et al*. 1979 (biol.); Westcott 2001b; MacRae 2006 (biol., distr.).
Distribution: **USA**: OK, TX
Host(s): adults on *Acacia berlandieri* Benth.; also on flowers of *Grindelia* sp., *Helianthus annuus* L. and *Verbesina encelioides* (Cav.) Gray.

maculifera Horn 1894:372, plate 8, fig. 5 (adult).
Type locality: TX – Type depository: MCZC 33811.
Taxonomy: Fall 1899.
Redescription: Fall 1899:8.
Ecology: Westcott, *et al*. 1979; 1990; MacRae 2006 (biol., distr.).
Distribution: **USA**: NM, TX; also recorded from Mexico.
Host(s): adults on flowers of *Baileya multiradiata* Gray, *Bigelowia* sp., *Chrysothamnus viscidiflorus* (Hook.) Nutt. ssp. *puberulus* (D.C. Eaton) H.M. Hall & Clements, *Helianthus petiolaris* Nutt., *Sphaeralcea angustifolia* (Cav.) G. Don and *Verbesina encelioides* (Cav.) Gray.

marginenotata Chevrolat 1867:583.
Type locality: Cuba, au center dl'ile – Type depository: BMNH.
misidentification: *cubaecola* of authors, not *cubaecola* Jacquelin du Val 1857.
Taxonomy: Fall 1899 (as *cubaecola*).
Redescription: Fall 1899:35 (as *cubaecola*).
Distribution: **USA**: FL; also recorded from the West Indies.

Host(s): adults on *Conocarpus erectus* L.

mariposa dohrni Horn 1878:15, plate 1, fig. 21 (elytron) (as species).
Type locality: CA – Type depository: MCZC 3803 (Lectotype not designated).
synonym: *bernardino* Van Dyke 1937:109 (as subspecies) – Synonymy: Barr 1975:412.
Type locality: CA, San Bernardino Co., Lytle Cr. – Type depository: CASC 4245.
Taxonomy: Horn 1878; Fall 1899; Barr 1975; Westcott & Nelson 2000.
Redescription: Fall 1899:24.
Ecology: White 1939 (biol., as *mariposa bernardino*);Westcott & Nelson 2000 (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: CA
Host(s): adults on *Adentostoma fasciculatum* H. & A., *Ceanothus crassifolius* Torr., *C. integerrimus* H. & A., *C. oliganthus* Nutt. *Cercocarpus betuloides* T. & G., *Purshia tridentata* (Pursh) DC. var. *glandulosa* (Curran) M.E. Jones, *Quercus berberidifolia* Liebm (misapplied to *Q. dumosa* Nutt.) and *Q. wislizeni* A. DC.

mariposa mariposa Horn 1878:22, pl.1, fig. 35 (elytron).
Type locality: CA, Mariposa – Type depository: MCZC 8032.
Taxonomy: Horn 1878; Fall 1899; Barr 1975; Westcott & Nelson 2000.
Ecology: Burke 1917b; Beer 1944; Westcott, *et al*. 1979 (biol.); Westcott & Nelson 2000 (distr.).
Distribution: **USA**: CA, OR
Host(s): larvae in *Ceanothus cuneatus* (Hook.) Nutt., *C. integerrimus* H. & A., *C. thyrsiflorus* Esch., *Cercis occidentalis* Torr., *Cercocarpus betuloides* T. & G., *C. ledifolius* Nutt., *Heteromelas arbutifolia* (Lindl.) Roemer, *Rhamnus californica* Esch. and *Toxicodendron diversilobum* (T. & G.) Greene; adults also on *Purshia tridentata* (Pursh) DC. var. *glandulosa* (Curran) M.E. Jones.

mexicana Kerremans 1900 [syn. of *solitaria*]

miliaris Horn 1878:10, plate 1, fig. 9 (elytron).
Type locality: TX – Type depository: MCZC 8026 (Lectotype not designated).
Taxonomy: Horn 1878; Fall 1899.
Redescription: Fall 1899:15; Cazier 1951b: fig. 15 (adult).
Ecology: Vogt 1949b; Cazier 1951b (distr.); Westcott, *et al*. 1979 (biol.); MacRae 2006 (biol., distr.).
Distribution: **USA**: TX; also recorded from Mexico.
Host(s): adults on *Acacia constricta* Benth, *Mimosa* sp.; and on flowers of *Porophyllum* sp., *Ratibida columnaris* (Sims.) D. Don, *Simsia calva* (Engelm. & Gray) Gray, *Viguiera stenoloba* Blake and *Xanthisma* sp.

mimicata Knull 1938c:136 (♂, ♀).
Type locality: AZ, Congress Junction – Type depository: FMNH (♂).
Ecology: Westcott, *et al*. 1979 (biol., distr.).
Distribution: **USA**: AZ, CA; also recorded from Mexico.
Host(s): larvae in *Celtis ehrenbergia* (Klot.) Liebm.; adults also on *Acacia constricta* Benth, *Cercidium floridum* Benth., *C. microphyllum* (Torr.) Rose & Johnston, *Lycium* sp. and *Olneya tesota* Gray.

mixta LeConte 1860:227.
Type locality: NM – Type depository: MCZC 2729 (Lectotype not designated).
synonym: *arizonae* Horn 1878:19 (as variety of *pulchella*) – Synonymy: Barr 1975:416.
Type locality: AZ – Type depository: MCZC?
synonym: *obesa* Kerremans 1910:271 – Synonymy: Barr 1975:416.
Type locality: TX – Type depository: MNHN.
Taxonomy: Horn 1878; Barr 1975.
Redescription: Cazier 1951b: fig. 17 (adult as *pulchella*).
Ecology: Vogt 1949b (as *pulchella*);Cazier 1951b (as *pulchella*); Westcott, *et al*. 1979; Nelson 1987a (distr.); MacRae & Nelson 2003; Davidson & Davidson 2005; MacRae 2006 (biol., distr.); Wellso & Jackman 2006 (biol.).
Distribution: **USA**: AZ CO KS NE NM OK TX UT; also recorded from Mexico.
Host(s): larvae in *Acacia greggii* Gray, *Avicennia germinans* (L.) L., *Celtis laevigata* Willd. and *Prosopis glandulosa* Torr.; adults also on flowers of *Penstemon barbatus* (Cav.) Roth, *Sphaeralcea* sp., *Tetraneuris scaposa* (DC.) Greene var. *scaposa*, *Thelesperma simplicifolium* Gray and various Asteraceae.

mojavei Westcott 1971b:14, figs. 9, 15 (adult, ovipositor).

Type locality: CA, Inyo Co., Panamint Mtns., S Emigrant Jct., 4500–5000' – Type depository: CASC 9850 (♀).
Taxonomy: Westcott 1971b.
Ecology: Westcott 1971b (biol., distr.); Westcott, *et al*. 1979 (biol.); Westcott 2005 (biol.).
Distribution: **USA**: AZ, CA, NV, UT
Host(s): larvae in *Lycium cooperi* A. Gray; adults also on flowers of *Baileya* sp., *Encelia farinose* T. & G., *Senna armata* (S. Wats.) Irwin & Barneby, *S. covesii* (Gray) Irwin & Barneby and *Sphaeralcea rusbyi* Gray var. *eremicola* (Jeps.) Kearn.

morbosa Fall 1899:20.
Type locality: CA, Los Angeles Co. – Type depository: MCZC 24422 (Lectotype not designated).
Taxonomy: Fall 1899.
Distribution: **USA**: CA
Host(s): unknown.

moronga Van Dyke 1943 [syn. of *tuta*]

nanbrownae Figg–Hoblyn 1953 [syn. of *vanduzeei*]

nautica Van Dyke 1945 [syn. of *simulata*]

navajo Nelson & Westcott 1995:82 (♂, ♀), figs. 2, 7, 12 (adult, ovipositor, distr. map).
Type locality: AZ, Coconino Co., 9 mi NW Page – Type depository: USNM (♀).
Ecology: Nelson & Westcott 1995 (biol., distr.).
Distribution: **USA**: AZ, UT
Host(s): adults on flowers of *Linum lewisii* Pursh, *Opuntia* sp. and *Sphaeralcea* sp.

neglecta Fall 1899:31.
Type locality: TX – Type depository: MCZC 24423.
Taxonomy: Fall 1899.
Ecology: Westcott, *et al*. 1979; Nelson 1987a; MacRae 1991; 2006 (biol., distr.); MacRae & Nelson 2003 (biol.).
Distribution: **USA**: AR, MO, OK, TX
Host(s): larvae in *Quercus pungens* Liebm, *Ulmus crassifolia* Nutt. and *Ziziphus obtusifolia* (T. & G.) Gray; adults also on flowers of the following genera: *Amelanchier, Antennaria, Calylophus, Chrysanthemum, Cologania, Coreopsis, Cornus, Erigeron, Dentaria, Fragaria, Hypoxis, Lithospermum, Oenothera, Oxalis, Penstemon, Phlox, Potentilla, Ranunculus, Rosa, Rudbeckia, Senecio, Sida, Stylosanthes, Taraxacum, Tetraneuris* and *Viburnum*.

nelsoni Barr 1972b:175, fig. 15 (adult).
Type locality: CA, San Bernardino Mtns., 3 mi S Camp Angeles, 5000' – Type depository: CASC 11498 (♂).
misidentification: *dohrni* of authors, not *dohrni* Horn 1878.
Taxonomy: Barr 1972b.
Ecology: Barr 1972b (biol., distr.).
Distribution: **USA**: CA
Host(s): adults on *Adenostoma fasciculatum* H. & A., *Ceanothus crassifolius* Torr., *C. cuneatus* (Hook.) Nutt., *Cercocarpus betuloides* T. & G., *Heteromeles arbutifolia* (Lindl.) Roemer, *Lotus* sp. and *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.).

neoneglecta Fisher 1949:336.
Type locality: Mexico. Type from mesquite intercepted at Brownsville, TX – Type depository: USNM 58789.
Ecology: Westcott, *et al*. 1979 (biol., distr.); Westcott 1991; MacRae & Nelson 2003; Wellso & Jackman 2006 (biol.)
Distribution: **USA**: TX; also recorded from Mexico.
Host(s): larvae in *Acacia farnesiana* (L.) Willd., *A. rigidula* Benth., *Carya tomentosa* Nutt., *Ebenopsis ebano* (Berl.) Barneby & Grimes, *Leucaena pulverulenta* (Schlecht.) Benth., *Prosopis glandulosa* Torr., *Sophora secundiflora* (Ortega) Lag. ex DC. and *Ulmus crassifolia* Nutt.; adults also on flowers of *Cologania angustifolia* Kunth. and *Opuntia engelmannii* Salm–Dyck ex Engelm. var. *linderheimei* (Engelm.) Parfitt & Pinkava.

nevadica Barr 1972b:158, fig. 6 (adult).
Type locality: NV, Clark Co., Kyle Cyn. – Type depository: CASC 11499.
Taxonomy: Barr 1972b.

Ecology: Barr 1972b; Westcott, *et al*. 1979 (biol., distr.).
Distribution: **USA**: CA, NV
Host(s): adults on flowers of *Cirsium* sp., *Cowania* sp., *Senecio* sp. and *Sphaeralcea* sp.

nexa Fall 1922:89.
Type locality: CA, San Bernardino Mtns. – Type depository: MCZC 24424.
Taxonomy: Chamberlin 1929; White 1939.
Ecology: White 1939; Beer 1944 (biol., as variety of *angelica*).
Distribution: **USA**: CA, OR
Host(s): larvae in *Cercocarpus betuloides* T. & G.; adults also on *Ceanothus crassifolius* Torr., *C. cuneatus* (Hook.) Nutt., *C. greggii* Gray var. *perplexans* (Trel.) Jeps., *C. oliganthus* Nutt. ex T. & G. and *Quercus* spp.

nigrovittata Van Dyke 1934:61.
Type locality: CA, Fresno Co., Selma – Type depository: CASC 3756.
Taxonomy: Cazier:1940a.
Ecology: Nelson 1962; Westcott, *et al*. 1979 (biol.).
Distribution: **USA**: CA
Host(s): larvae in *Atriplex polycarpa* (Torr.) S. Wats. and *Suaeda moquinii* (Torr.) Greene.; adults also on flowers of *Centaurea solstitialis* L., *Cirsium* sp., *Hemizonia kelloggii* Greene and *Monolopia lanceolata* Nutt.

obesa Kerremans 1910 [syn. of *mixta*]

obtusa Horn 1878:19, plate 1, fig.29 (elytron).
Type locality: TX. – Type depository: MCZC 8030 (Lectotype not designated).
synonym: *anthobia* Obenberger 1924:33 – Synonymy: Barr 1975:417.
Type locality: TX – Type depository: NMPC 19692
Taxonomy: Horn 1878; Fall 1899; Barr 1975.
Redescription: Fall 1899:29.
Ecology: Vogt 1949b (biol.); Westcott, *et al*. 1979 (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: OK, TX
Host(s): adults on recently bulldozed *Prosopis glandulosa* Torr.; and on flowers of Asteraceae, *Calyophus berlandieri* Spach ssp. *pinifolius* (Engelm. ex Gray) Towner and *Opuntia engelmannii* Salm–Dyck ex Engelm. var. *linderheimeri* (Engelm.) Parfitt & Pinkava.

opacula LeConte 1858:69.
Type locality: TX, El Paso – Type depository: MCZC 2720.
Taxonomy: Horn 1878; Fall 1899; Cazier 1940a; Barr 1975.
Redescription: Horn 1878:7, plate 1, fig. 2 (elytron).
Distribution: **USA**: TX
Host(s): unknown.

opuntiae Knull 1966a:332 (♂, ♀), fig. 1 (adult).
Type locality: TX, Starr Co., 5 mi W Sullivan City – Type depository: FMNH (♂).
Taxonomy: Knull 1966a.
Ecology: Knull 1966a; Westcott 2001b (biol.); MacRae 2006 (biol., distr.).
Distribution: **USA**: TX
Host(s): larvae in dead stalks of *Karwinskia humboldtiana* (J.A. Schultes) Zucc. and *Parkinsonia texana* (Gray) S. Wats. var. *texana*; adults also on flowers of *Astrophytum asterias* (Zucc.) Lem., *Opuntia engelmannii* Salm–Dyck ex Engelm. var. *lindheimeri* (Engelm.) Parfitt & Pinkava.

ornata (Fabricius) 1775:220 (*Buprestis*).
Type locality: PA – Type depository: BMNH.
synonym: *dispar* Gory 1840:31 – Synonymy: Obenberger 1926:79.
Type locality: "Amer. Bor." – Type depository: MNHN.
synonym: *quatuordecimspilota* Obenberger 1917:55 – Synonymy: Westcott & Barr 1998:56.
Type locality: "Nordamerika" – Neotype ♂ from **USA**: AR, Ozark Natl. For., Newton Co., Forest Service Rd. 1209, at Buck Brook, designation: Westcott & Barr 1998:56 – Type depository: NMPC.
Taxonomy: Horn 1878; Fall 1899; Barr 1975; Westcott & Barr 1998.
Redescription: Horn 1878: fig. 15 (elytron); Westcott & Barr 1998: fig. 3 (Neotype of *quatuordecimguttata*).

Ecology: Westcott, *et al*. 1979; Nelson, *et al*. 1981 (distr.); Nelson 1987a; MacRae 1991; 2006 (biol., distr.).

Distribution: **USA**: AL, AR, DC, FL, GA, IN, KY, MO, NC, NJ, OH, OK, PA, SC, TN, VA, WV

Host(s): adults on recently cut *Persea borbonia* (L.) Spreng. and *Quercus alba* L.; also on flowers of *Amelanchier arborea* (Michx. f.) Fern., *Coreopsis lanceolata* L., *Cornus florida* L., *Echinacea pallida* Nutt., *Erigeron* sp., *Geranium maculatum* L., *Helianthus* sp., *Hypoxis hirsuta* (L.) Cov., *Leucanthemum vulgare* Lam., *Lithospermum canescens* (Michx.) Lehm., *Oenothera macrocarpa* Nutt., *Opuntia* sp., *Packera obovata* (Muhl. ex Willd.) Weber & Love, *P. plattensis* (Nutt.) Weber & Love, *Parthenium integrifolium* L., *Potentilla recta* L., *P. simplex* Michx., *Prunus americana* Marsh., *Rosa carolina* L., *R. multiflora* Thunb. ex Murr., *R. setigera* Michx., *Rubus* sp., *Rudbeckia hirta* L., *Stylophorum diphyllum* (Michx.) Nutt., *Taenidia integerrima* (L.) Drude, *Taraxacum officinale* Wiggers and *Viburnum rufidulum* Raf.

ornatoides Barr 1972b:167, fig. 9 (adult).

Type locality: TX, Goliad Co., Weser – Type depository: AMNH (♂).

misidentification: *ornata* of authors (in part), not *ornata* Fabricius 1775.

Taxonomy: Barr 1972b.

Ecology: Barr 1972b; Westcott, *et al*. 1979 (biol.); Westcott 2001b; MacRae 2006 (biol., distr.).

Distribution: **USA**: NM, OK, TX

Host(s): larvae in *Diospyros texana* Scheele and *Quercus fusiformis* Small; adults also on flowers of *Callirhoe* sp., *Calyophus berlandieri* Spach ssp. *pinifolius* (Engelm. ex Gray) Towner, *Lygodesmia texana* (T. & G.) Greene, *Oenothera speciosa* Nutt., *Opuntia* sp. and *Prosopis glandulosa* Torr.

pallidula Kerremans 1910 [syn. of *latiflava latiflava*]

panamintensis Westcott 1971b:17, figs. 3, 11 (adult, ovipositor)

Type locality: CA, Inyo Co., Panamint Mtns., Wildrose Cyn., 7000' – Type depository: CASC 9851 (♀).

Taxonomy: Westcott 1971b.

Ecology: Westcott 1971b; Westcott, *et al*. 1979 (biol., distr.).

Distribution: **USA**: CA, NV.

Host(s): larvae in *Ephedra viridis* Cov.; adults also on flowers of *Fallugia paradoxa* (D. Don) Endl., *Monardella* sp., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh, *Salvia* sp. and *Tetradymia* sp.

panocheae Westcott 2001 [ssp. of *pubiventris*]

papagonis Duncan 1934 [syn. of *convicta*]

paradisjuncta Knull 1940a:36 (♂, ♀).

Type locality: TX, Davis Mtns. – Type depository: FMNH.

Taxonomy: Knull 1940a.

Redescription: Cazier 1951b: fig. 8 (adult).

Ecology: Cazier 1951b; Westcott, *et al*. 1979 (biol.); Westcott 1991 (distr.); MacRae 2006 (biol., distr.).

Distribution: **USA**: NM, TX; also recorded from Mexico.

Host(s): larvae in *Dasylirion wheeleri* S. Wats.; adults also on flowers of *Baileya multiradiata* Gray, *Jefea brevifolia* (Gray) Stother, *Mentzelia oligosperma* Nutt. ex Sims, *Porophyllum* sp., *Psilostrophe* sp. and *Viguiera stenoloba* Blake.

parkeri Cazier 1940a:22.

Type locality: AZ, Globe – Type depository: AMNH.

Taxonomy: Cazier 1940a.

Redescription: Cazier 1951b: fig. 18 (adult).

Ecology: Cazier 1951b; Westcott, *et al*. 1979 (distr.); Bellamy 1982 (biol.).

Distribution: **USA**: AZ, NM, TX; also recorded from Mexico.

Host(s): adults on flowers of *Allionia incarnata* L., *Boerhavia coccinea* Mill. and *Ericameria* sp.

perforata Cazier 1940 [syn. of *consors*]

perlanosa Timberlake 1939:179.

Type locality: CA, near Palm Sprs. andreas Cyn. – Type depository: CASC 12191 (♂).

Ecology: Tilden 1955 (biol.); Nelson 1987a (distr.).

Distribution: **USA**: AZ, CA

Host(s): adults on flowers of *Eriodictyon crassifolium* Benth. and *E. trichocalyx* Heller.

pinalorum Knull 1930b:15.
Type locality: AZ, base of Pinal Mtns., 4000' – Type depository: FMNH.
Ecology: Barr 1941a; Westcott, *et al*. 1979; 1990 (distr.); Walters & Bellamy 1990 (biol., distr.).
Distribution: **USA**: AZ, CA, NM, TX; also recorded from Mexico.
Host(s): adults on *Acacia constricta* Benth., *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby and *Prosopis glandulosa* Torr.

plagiaticauda Horn 1878:10, plate 1, fig. 8 (elytron).
Type locality: CA, Mariposa region – Type depository: MCZC 8025 (Lectotype not designated).
synonym: *postica* Fall 1899:25 – Synonymy: Westcott & Nelson 2000:301.
Type locality: CA, Los Angeles Co. – Type depository: USNM 4179.
synonym: *verecunda* Barr 1972b:153, fig. 4 (adult) – Synonymy: Westcott & Nelson 2000:301.
Type locality: CA, Santa Barbara Co., Sunset Valley – Type depository: CASC 11505 (♂).
Taxonomy: Horn 1878; Fall 1899; Westcott & Nelson 2000.
Ecology: Beer 1940; 1944; Westcott, *et al*. 1979 (biol.); Westcott & Nelson 2000 (distr.).
Distribution: **USA**: CA, OR
Host(s): larvae in *Arctostaphylos canescens* Eastw., *A. glauca* Lindl. and *A. viscida* Parry; adults also on flowers of *Lotus* sp.

pletura Barr 1972b:164, fig. 12 (adult).
Type locality: NV, Clark Co., Lee Cyn. – Type depository: CASC 11502 (♂).
Taxonomy: Barr 1972b.
Ecology: Barr 1972b (biol., distr.); Westcott 1991 (distr.).
Distribution: **USA**: AZ, NV, UT
Host(s): adults on flowers of *Fallugia paradoxa* (D. Don) Endl., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh and *Sphaeralcea* sp.

princeps Kerremans 1908:591.
Type locality: "Nouv Zelande" – Type depository: MNHN.
synonym: *flavinigrapunctata* Knull 1928:314 – Synonymy: Bellamy & Williams 1985:160.
Type locality: TX, Raymondville – Type depository: FMNH (♂).
Taxonomy: Bellamy & Williams 1985.
Ecology: Vogt 1949b; Westcott, *et al*. 1979 (biol., all as *flavinigrapunctata*); MacRae 2006 (biol., distr.).
Distribution: **USA**: TX; also recorded from New Zealand (likely in error).
Host(s): larvae in *Parkinsonia aculeata* L., *P. texana* (Gray) S. Wats.; adults ovipositing in dead *Diospyros texana* Scheele; and on flowers of *Engelmannia peristenia* (Raf.) Goodman & Lawson, *Jefea brevifolia* (Gray) Stother, *Thelesperma simplicifolium* Gray and *Viguiera stenoloba* Blake.

postica Fall 1899 [syn. of *plagiaticauda*]

prorsa Fall 1899:23.
Type locality: CA, San Bernardino Co. – Type depository: MCZC 24426 (Lectotype not designated).
Immature stages: Burke 1917a: plate 5, fig. 2 (larva).
Taxonomy: Fall 1899.
Ecology: White 1939; Tilden 1955; Westcott, *et al*. 1979 (biol.); Bellamy 1982 (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: CA
Host(s): adults on *Quercus dumosa* Nutt., also on flowers of *Eriodictyon trichocalyx* Heller, *Rosa californica* Cham. & Schldl., *Salvia* spp.,and *Turricula parryi* (Gray) Macbr.

pubiventris lanata Horn 1880:148. (as species).
Type locality: UT, Kanab – Type depository: MCZC 33809.
synonym: *biedermani* Skinner 1903:329 – Synonymy: Van Dyke 1919c:189.
Type locality: AZ, Florence – Type depository: ANSP 8196.
Taxonomy: Fall 1899; Westcott 1966; 1971; Barr 1975; Westcott 2001a; 2001b.
Redescription: Fall 1899:11; Westcott 1971: figs. 5, 12 (adult, ovipositor); 2001a:175, figs. 2–6 (adult variation).
Ecology: Barr 1969a; Westcott 2001a; MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, CA, NV, UT; also recorded from Mexico.
Host(s): larvae in *Ephedra californica* S. Wats., *E. nevadensis* S. Wats. and *E. trifurca* Torr.; adults also on *Cercocarpus* sp., *Encelia actoni* Elmer, *Eriodictyon trichocalyx* Heller, *Fremontodendron*

californicum (Torr.) Cov., *Pleuraphis rigida* Thurb., *Psorothamnus arborescena* (Gray) Barneby var. *simplicifolius* (Parish) Barneby; and flowers of *Acacia greggii* Gray, *Coreopsis bigelovii* (Gray) Hall, *Encelia farinosa* T. & G., *E. actoni* Elmer, *Eriogonum fasciculatum* (Benth.) T. & G., *Fallugia paradoxa* (D. Don) Endl., *Poliomintha* incana (Torr.) Gray, *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh, *Salvia vaseyi* (Porter) Parish, *Senna armata* (S. Wats.) Irwin & Barneby, S*phaeralcea rusbyi* Gray var. *eremicola* (Jeps.) Kearn., *Stephanomeria pauciflora* (Torr.) Nelson *Thelesperma subnudum* Gray and *Viguiera reticulata* S. Wats.

pubiventris panocheae Westcott 2001a:176, fig. 8 (adult).

Type locality: CA: San Benito Co., 8.2 mi on Panoche Rd. W from Hwy. I–5 – Type depository: CASC 17790.

Taxonomy: Westcott 2001a.

Ecology: Westcott 2001a (biol., distr.).

Distribution: **USA**: CA

Host(s): larvae in *Ephedra californica* S. Wats.; adults also on flowers of *Eriogonum fasciculatum* (Benth.) T. & G.

pubiventris pubiventris Horn 1878:9, plate 1, fig. 7 (elytron).

Type locality: CA, Owen's Valley – Type depository: MCZC 8024 (Lectotype not designated).

Taxonomy: Horn 1878; Fall 1899; Westcott 2001a.

Redescription: Westcott 2001a:175, fig. 1 (adult).

Ecology: Westcott 2001a (biol., distr.).

Distribution: **USA**: CA

Host(s): larvae in *Ephedra nevadensis* S. Wats.; adults also on *Psorothamnus* sp.; and flowers of *Encelia actoni* Elmer, *Monardella* sp. and *Tetradymia* sp.

pubiventris yumae Knull 1937d:301 (as species).

Type locality: AZ, Yuma – Type depository: FMNH.

Taxonomy: Knull 1937d; Westcott 2001a.

Redescription: Akiyama & Ohmomo 2000: fig. 212 (♀); Westcott 2001a:177, fig. 9 (adult).

Ecology: Barr 1941a; Westcott 2001a (biol., distr.); Nelson 1962; Westcott, *et al*. 1979 (distr.).

Distribution: **USA**: AZ, CA; also recorded from Mexico.

Host(s): larvae in *Ephedra trifurca* Torr.; adults also on *Larrea tridentata* (DC.) Cov.; and flowers of *Pluchea sericea* (Nutt.) Cov.

pulchella (Herbst) 1801:211, plate 154, fig. 6 (adult) (*Buprestis*).

Type locality: "Amer. Sept." – Type depository: ZMHB.

synonym: *flavosignata* Gory 1840:30, plate 6, fig. 28 (adult) – Synonymy: LeConte 1860:226.

Type locality: "Amer. Sept." – Type depository: MNHN.

misidentification: *ornata* of authors (in part), not *ornata* Fabricius 1775.

Taxonomy: Horn 1878; Fall 1899.

Redescription: Horn 1878:18; Knull 1925: plate 2, fig. 4 (adult); Bright 1987:33.

Ecology: Westcott, *et al*. 1979; Bright 1987; Nelson 1987a; MacRae 1991; Westcott 1991 (distr.); MacRae 2006 (biol., distr.).

Distribution: **Canada**: MB, ON, PQ; **USA**: AL, AR, FL, GA, IA, IL, IN, KS, KY, LA, MD, MI, MO, MT, NC, ND, NJ, OH, PA, SC, SD, TN, WI, WY

Host(s): larvae in *Crataegus* sp., *Gleditsia triacanthos* L. and *Taxodium distichum* (L.) Rich.; adults also on *Acer saccharinum* L., *Diospyros virginiana* L., *Quercus alba* L.; and flowers of *Apocynum cannabinum* L., *Asclepias tuberosus* L., *Carduus nutans* L., *Ceanothus* sp., *Coreopsis palmata* Nutt., *Erigeron* sp., *Helianthus tuberosus* L., *Heliopsis helianthoides* L., *Ratibida pinnata* (Vent.) Barnh., *Rudbeckia hirta* L., *R. missouriensis* Engelm., *R. triloba* L., *Ruellia strepens* L., *Tephrosia virginiana* (L.) Pers., *Verbesina alternifolia* (L.) Britt. and *Vernonia baldwini* Torr.

pullata Cazier 1940b:57.

Type locality: CA, Riverside Co., Keen Cp. to Hemet, S Jac. R., 4000' – Type depository: CASC 8105.

Taxonomy: Cazier 1940b.

Ecology: Nelson 1959; 1960b (biol.).

Distribution: **USA**: CA

Host(s): adults on *Adenostoma fasciculatum* H. & A., *Ceanothus greggii* Gray var. *perplexans* (Trel.) Jeps. and *Quercus dumosa* Nutt.

purshiae Fisher 1926:114.
Type locality: NV, "Mount Rose, five miles southwest of Reno" – Type depository: USNM 28323.
Taxonomy: Fisher 1926.
Ecology: Fisher 1926; Cazier 1940a; Barr 1941a; Beer 1944; Barr 1969a (biol., distr.); Nelson 1959 (distr.).
Distribution: **USA**: CA, ID, NV, OR, UT
Host(s): larvae in *Purshia tridentata* (Pursh) DC var. *glandulosa* (Curran) M.E. Jones; adults also on *Fallugia paradoxa* (D. Don) Endl. and *Juniperus* sp.

quadriseriata Fall 1899:18.
Type locality: CA, Santa Barbara Co. – Type depository: MCZC 24427 (Lectotype not designated).
Taxonomy: Fall 1899.
Ecology: White 1939 (biol.); Nelson 1962 (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: CA; also recorded from Mexico.
Host(s): adults on *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.), *Q. wislizeni* A. DC. and *Prunus ilicifolia* (Nutt.) Walp.; also on flowers of *Ceanothus crassifolius* Torr., *C. greggii* Gray var. *perplexans* (Trel.) Jeps., *C. leucodermis* Greene, *C. oliganthus* Nutt., *Encelia actoni* Elmer, *Eriodictyon traskiae* Eastw., *E, trichocalyx* Heller, *Eriogonum fasciculatum* (Benth.) T. & G., *Eriophyllum confertiflorum* (DC.) Gray, *Heterotheca fastigiata* (Greene) Harmes, *Lotus scoparius* (Nutt.) Ottley and *Salvia apiana* Jeps.

quadrivittata Horn 1870:79.
Type locality: UT – Type depository: MCZC 33319 (♀).
Taxonomy: Horn 1878; Fall 1899; Nelson 1985b; Nelson & Westcott 1995.
Redescription: Horn 1878:23, plate 1, fig. 37 (elytron); Cazier 1951b: fig. 20 (adult); Nelson & Westcott 1995: fig. 6 (ovipositor).
Ecology: Cazier 1951b (distr.); Nelson & Westcott 1995; Westcott 2001b (biol.); MacRae 2006 (biol., distr.)
Distribution: **USA**: CA, NV, UT; also recorded from Mexico.
Host(s): larvae in *Yucca schidigera* Ortgies and *Y. whipplei* Torr.; adults also on wide variety of flowers including: A*cacia greggii* Gray, *Adenostoma fasciculatum* H. & A., *Encelia actoni* Elmer, *Eriogonum elongatum* Benth., *E. fasciculatum* (Benth.) T. & G., *Fallugia paradoxa* (D. Don) Endl., *Hymenoclea salsola* Gray, *Langloisia setosissima* (T. & G.) Greene, *Opuntia* sp., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh, *Salvia vaseyi* (Porter) Parish and *Sphaeralcea ambigua* Gray.

quadrivittatoides Nelson & Westcott 1995:77, figs. 1, 5, 9, 10, 12 (adult, ovipositor, parts).
Type locality: TX, Brewster Co., Big Bend Natl. Park, 3 mi E Panther Junction – Type depository: USNM (♀).
misidentification: *quadrivittata* of authors (in part), not *quadrivittata* Horn 1870.
Ecology: Nelson & Westcott 1995; Davidson & Davidson 2005; MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, CA, NM, NV, TX, UT; also recorded from Mexico.
Host(s): adults on flowers of *Acacia berlandieri* Benth., *A. constricta* Benth., *Argemone polyanthemos* (Fedde) Ownbey, *Asclepias* sp., *Bahia pedata* Gray, *Baileya multiradiata* Gray, *Bebbia* sp., *Boerhavia* sp., *Chaetopappa ericoides* (Torr.) Nesom, *Cirsium neomexicanum* Gray, *C. undulatum* (Nutt.) Spreng, *Croton pottsii* (Klot.) Muell.–Arg., *Echinocactus horizonthalonius* Lem., Echinocereus sp., *Erigeron divergens* T. & G., *Eriodictyon angustifolium* Nutt., *Fallugia paradoxa* (D. Don) Endl., *Ferocactus* sp., *Gaillardia arizonica* Gray, *Machaeranthera gracilis* (Nutt.) Shinn., *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby, *Opuntia basilaris* Engelm. & Bigel., *O. engelmannii* Salm–Dyck ex Engelm. var. *linderheimeri* (Engelm.) Parfitt & Pinkava, *Palafoxia* sp., *Penstemon ambiguus* Torr., *Poliomintha incana* (Torr.) Gray, *Porophyllum* sp., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh, *Sphaeralcea coccinea* (Nutt.) Rydb., *S. hastulata* Gray, *Tiquilia canescens* (DC.) Richards., *T. greggii* (T. & G.) Richards and *Verbena* sp.

quatuordecimguttata (Fabricius 1801) [syn. of *tubulus*]

quatuordecimspilota Obenberger 1917 [syn. of *ornata*]

recticollis Fall 1899:13.
Type locality: NM – Type depository: MCZC 58128 ANSP 8381 (Lectotype not designated).
Taxonomy: Fall 1899; Westcott & Barr 1998.

Redescription: Westcott & Barr 1998: figs. 2, 5 (adult, ovipositor).
Ecology: Westcott & Barr 1998; Westcott 2001b (distr.); Davidson & Davidson 2005 (biol., distr.).
Distribution: **USA**: AZ, NM, TX, UT
Host(s): larvae in *Ephedra* spp.; adults also on flowers of *Fallugia paradoxa* (D. Don) Endl., *Prosopis* sp.

recticolloides Westcott 1971b:3, figs. 1, 10 (adult, ovipositor).
Type locality: Mexico: BCN, Valley de Trinidad, La Zapopita – Type depository: CASC 9852 (♀).
Taxonomy: Westcott 1971b; Westcott & Barr 1998.
Ecology: Westcott 1971b (biol., distr.).
Distribution: **USA**: CA; also recorded from Mexico: BCN.
Host(s): adults on *Ephedra californica* S. Wats. and *Lotus scoparius* (Nutt.) Ottley.

reflexa Barr 1992:74, fig. 4 (adult).
Type locality: NM, Hidalgo Co., Animas Mtns., 6000', Indian Creek – Type depository: CASC 16954 (♀).
Taxonomy: Barr 1992.
Ecology: Barr 1992 (distr.).
Distribution: **USA**: NM; also recorded from Mexico.
Host(s): unknown.

resplendens Van Dyke 1937:106 (♂, ♀).
Type locality: AZ, Santa Rita Mtns. – Type depository: CASC 4242 (♂).
misidentification: *cuprina* of Horn 1878, not of Spinola 1838 – Synonymy: Duncan 1934a:229.
Redescription: Cazier 1951b: fig. 4 (adult); Akiyama & Ohmomo 2000; fig. 199 (♂, ♀).
Ecology: Cazier 1951b; Westcott, *et al*. 1979 (biol.); Westcott, *et al*. 1990 (distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): adults on flowers of *Helianthus nuttallii* T. & G. and *Verbena gooddingii* Briq.

retifera LeConte 1859:72.
Type locality: CA, Fort Tejon – Type depository: MCZC 2724.
misidentification: *acuta* of authors (in part), not *acuta* LeConte 1860.
Ecology: Burke 1917b; Beer 1944 (biol. as *acuta*); Barr 1971; MacRae 2006 (biol., distr.).
Distribution: **USA**: CA, OR
Host(s): larvae in *Quercus douglasii* H. & A. and *Q. garryana* Hook.; adults also on *Ceanothus cuneatus* (Hook.) Nutt.; and on flowers of *Eriophyllum lanatum* (Pursh) James Forbes, *Lupinus benthamii* Heller and *Rosa pisocarpa* Gray.

riograndei Nelson 1980b:175 (♂, ♀) figs. 2, 4 (adult, ovipositor).
Type locality: TX, Brewster Co., W side Chisos Mtns., Oak Sprs. – Type depository: USNM (♀).
misidentification: *discalis* of authors (in part), not *discalis* Cazier 1940.
Taxonomy: Nelson 1980b.
Ecology: Nelson 1980b (biol., distr.); MacRae & Nelson 2003 (biol.).
Distribution: **USA**: TX; also recorded from Mexico.
Host(s): adults on flowers of *Cirsium* sp. and *Tiquilia greggii* (T. & G.) Richards.

robigo Knull 1954a:27.
Type locality: TX, Lake Corpus Christi – Type depository: FMNH (♂).
Taxonomy: Knull 1954a.
Ecology: Nelson, *et al*. 1996 (biol., distr.).
Distribution: **USA**: TX
Host(s): larvae in *Dalea formosa* Torr.; adults also on small white Asteraceae flowers.

robusta Horn 1878:9, plate 1, fig. 6 (elytron).
Type locality: CA, Owen's Valley – Type depository: MCZC 8023 (Lectotype not designated).
Taxonomy: Horn 1878; Fall 1899.
Redescription: Akiyama & Ohmomo 2000: fig. 2004.
Ecology: Westcott, *et al*. 1979 (biol.).
Distribution: **USA**: CA
Host(s): adults on *Chrysothamnus* sp., *Ephedra* sp.; also flowers of *Dalea* sp., *Psorothamnus* sp. and *Encelia actoni* Elmer.

rubrocuprea Westcott & Nelson 2000:302 (♂): fig. 1 (holotype).
Type locality: CA, Santa Barbara Co., Sunset Valley – Type depository: CASC 17763 (♂).

misidentification: *postica* of authors, not *postica* Fall 1899.
Taxonomy: Westcott & Nelson 2000.
Ecology: Chamberlin 1926 (in part, distr. as *postica*); White 1939 (biol., as *postica*); Westcott & Nelson 2000 (biol., distr.)
Distribution: **USA**: CA; also recorded from Mexico.
Host(s): larvae in *Cercocarpus betuloides* T. & G.

rubronotata Laporte & Gory 1835:5, plate 1, fig. 5 (adult).
Type locality: Mexico. (type locality originally cited erroneously as Chili. Label on type, "Mexico") – Type depository: MNHN.
synonym: *sparsa* Horn 1878:11, plate 1, fig. 10 (elytron) – Synonymy: Barr 1975:418.
Type locality: CO – Type depository: MCZC 8027 (Lectotype not designated).
Taxonomy: Horn 1878; Fall 1899 (as *sparsa*); Barr 1975.
Redescription: Horn 1878:11, plate 1, fig. 10 (elytron as *sparsa*); Cazier 1951b: fig. 14 (adult as *sparsa*).
Ecology: Cazier 1951b (as *sparsa*); Westcott, *et al*. 1990; Westcott 2001b (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, CO, ID, NM, NV, TX, UT; also recorded from Mexico.
Host(s): larvae in *Quercus* sp.; adults also on flowers of *Asclepias* sp., *Bahia dissecta* (Gray) Britt., *Baileya multiradiata* Gray, *Chrysothamnus* sp., *Erigeron neomexicanus* Gray, *Gymnosperma glutinosum* Less., *Helianthus nuttallii* T. & G., *Heliopsis parvifolia* Gray, *Heterotheca subaxillaris* (Lam.) Britt & Rusby, *Lasianthaea podocephala* (Gray) K. Becker, *Machaeranthera gracilis* (Nutt.) Shinn., *Senecio flaccidus* Less. and *Verbesina encelioides* (Cav.) Gray.

rubrosuffusa Fall 1907 [syn. of *tuta*]

sabinae Knull 1937a:15.
Type locality: AZ, Sabino Cyn., near Tucson – Type depository: FMNH (♂).
Ecology: Cazier 1940a; Barr 1941a; Westcott, *et al*. 1979 (biol., distr.).
Distribution: **USA**: AZ, CA; also recorded from Mexico.
Host(s): larvae in *Prosopis glandulosa* Torr. var. *torreyana* (L. Benson) Johnston; adults also on *Baccharis* sp., *Pluchea sericea* (Nutt.) Cov. and *Prosopis pubescens* Benth.

scalaris Mannerheim 1837:25.
Type locality: Mexico: Mineral del Zimapan – Type depository: UZMH (Lectotype designation: Nelson 1976:167).
misidentification: *mima* of authors, not *mima* Gory 1840.
synonym: *semivittata* LeConte 1858:69 – Synonymy: Waterhouse 1882:23.
Type locality: TX, Eagle Pass – Type depository: MCZC 2728.
Taxonomy: Horn 1878 (as *mima*); Fall 1899.
Redescription: Horn 1878:17, plate 1, fig. 20 (elytron as *mima*); Cazier 1951b: fig. 13 (adult).
Ecology: Vogt 1949 (biol.); Cazier 1951b (distr.); Westcott, *et al*. 1979; 1990 (biol., distr.).
Distribution: **USA**: AZ, NM, TX; also recorded from Mexico. and Central America.
Host(s): adults on *Acacia farnesiana* (L.) Willd. and *Cercidium* sp.; also flowers of *Bahia absynthifolia* Benth., *Baileya* sp., *Cleome* sp., *Gutierrezia sarothrae* (Pursh) Britt. & Rusby, *Helianthus petiolaris* Nutt. and *Sphaeralcea* sp.

semivittata LeConte 1858 [syn. of *scalaris*]

serena Fall 1899:16.
Type locality: AZ, Tucson – Type depository: MCZC 24429 (Lectotype not designated).
Taxonomy: Fall 1899.
Ecology: Nelson 1962 (distr.); Westcott, *et al*. 1979 (biol., distr.).
Distribution: **USA**: AZ, CA; also recorded from Mexico.
Host(s): adults on flowers of *Pluchea sericea* (Nutt.) Cov. and *Sphaeralcea* sp.

simulata Van Dyke 1937:108.
Type locality: CA, Sequoia Natl. Park, Camp Potwisha – Type depository: CASC 4244.
synonym: *nautica* Van Dyke 1945:106 – Synonymy: Westcott & Barr 1998:56.
Type locality: CA, Contra Costa Co., near Lafayette – Type depository: CASC 5440.
Taxonomy: Van Dyke 1937; Westcott & Barr 1998.
Ecology: Van Dyke 1937; Nelson 1959 (biol., distr.); Westcott, *et al*. 1979 (biol. as *nautica*).
Distribution: **USA**: CA, OR

Host(s): larvae in *Quercus kelloggii* Newb. and *Q. wislizeni* A. DC.; adults also on flowers of *Rosa* sp.

sinuata sexnotata Van Dyke 1919:153, plate 7, fig. 3 (elytron).
Type locality: CA, Lake Co., Hullville – Type depository: CASC 3258.
Ecology: Beer 1940; 1944 (biol.).
Distribution: **USA**: CA, OR
Host(s): larvae in *Ceanothus cuneatus* (Hook.) Nutt.; adults also on *C. greggii* Gray.

sinuata sinuata Van Dyke 1919:152, plate 7, fig. 1 (elytron).
Type locality: CA, El Dorado Co., above Placerville, Placerville Rd. – Type depository: CASC 3257.
Redescription: Akiyama & Ohmomo 2000: fig. 211(♀).
Ecology: White 1939; Tilden 1955; Nelson 1959 (biol.).
Distribution: **USA**: CA
Host(s): adults on *Ceanothus crassifolius* Torr., *C. cuneatus* (Hook.) Nutt., *C. greggii* Gray var. *perplexans* (Trel) Jeps. and *Cercocarpus betuloides* T. & G.

solitaria Kerremans 1897:40.
Type locality: "Mexique" – Type depository: BMNH.
synonym: *interrupta* Kerremans 1897:41 (preoccupied: *interrupta* Kerremans 1892).
synonym: *daggetti* Fall 1899:26 – Synonymy: Théry 1935:255.
Type locality: AZ, Ft. Huachuca – Type depository: MCZC 24409.
synonym: *mexicana* Kerremans 1900:310 (replacement name for *interrupta* Kerremans 1897, not Kerremans 1892) – Synonymy: Barr 1992:83.
Type locality: "Mexique" – Type depository: BMNH.
Taxonomy: Fall 1899 (as *daggetti*); Barr 1992.
Redescription: Fall 1899:26; Kerremans 1906: plate 13, fig. 7 (all as *daggetti*).
Ecology: Bellamy 1982; Woods 1992 (biol., as *daggetti*); MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, CA; also recorded from Mexico.
Host(s): adults on flowers of *Abutilon* sp., *Allionia incarnata* L., Asteraceae, *Boerhavia coccinea* Mill., *Heterotheca subaxillaris* (Lam.) Britt. & Rusby, *Lasianthaea podocephala* (Gray) K. Becker, *Mimosa dysocarpa* Benth., *Parkinsonia aculeata* L. and *Tephrosia* sp.

sparsa Horn 1878 [syn. of *rubronotata*]

sphaeralceae Barr 1972b:166, fig. 13 (adult).
Type locality: AZ, Santa Catalina Mtns., Molina Basin – Type depository: CASC 11503 (♂).
Taxonomy: Barr 1972b.
Ecology: Barr 1972b; Westcott, *et al*. 1979; Westcott 1991(biol., distr.); 2001b; MacRae & Nelson 2003 (distr.).
Distribution: **USA**: AZ, CA, CO, NM, NV, UT
Host(s): adults on flowers of *Encelia farinosa* T. & G. and *Sphaeralcea laxa* Woot. & Standl.

starrae Knull 1966a:334, fig. 2 (adult).
Type locality: TX, Starr Co., 5 mi W Sullivan City – Type depository: FMNH (♂).
Taxonomy: Knull 1966.
Ecology: Knull 1966 (biol.).
Distribution: **USA**: TX
Host(s): unknown.

subcyanea Fall 1899 [syn. of *flavopicta*]

tenebricosa Fall 1922:90.
Type locality: CA, Kern Co., Havilah – Type depository: MCZC 24430.
Ecology: Nelson 1962 (biol.).
Distribution: **USA**: CA
Host(s): larvae in *Fremontodendron californicum* (Torr.) Cov.

texana LeConte 1860:228.
Type locality: TX – Type depository: MCZC 2731.
Taxonomy: Horn 1878; Fall 1899.
Redescription: Horn 1878:20, plate 1, fig. 32 (elytron); Fall 1899:30.
Ecology: Westcott, *et al*. 1979; Nelson 1987a; MacRae 1991 (biol.); MacRae & Nelson 2003 (distr.); MacRae 2006 (biol., distr.)
Distribution: **USA**: AL, AR, GA, IL, LA, MO, MS, NC, OK, TX
Host(s): adults on flowers of *Chamaecrista fasciculata* (Michx.) Greene, *Hypericum perforatum* L.,

Linum sulcatum Riddell, *Ludwigia alternifolia* L., *Rosa carolina* L., *Ruellia humilis* Nutt., *R. strepens* L., *Stylosanthes biflora* (L.) B.S.P. and *Tephrosia virginiana* (L.) Pers.

thoracata Knull 1974:143, fig. 1 (adult).
Type locality: TX, Starr Co. – Type depository: FMNH.
Taxonomy: Knull 1974.
Distribution: **USA**: TX
Host(s): unknown.

tildenorum Nelson & Westcott 1995:85 (♂, ♀), figs. 3, 4, 8, 11 (adult, ♀, ♂, ovipositor, ♂ genitalia).
Type locality: TX, Hidalgo Co., Sullivan – Type depository: CASC 17651 (♀).
Ecology: Nelson & Westcott 1995 (biol., distr.).
Distribution: **USA**: TX; also recorded from Mexico.
Host(s): adults on flowers of *Acacia berlandieri* Benth., *Echinocactus* sp., *Opuntia engelmannii* Salm–Dyck ex Engelm. var. *lindheimeri* (Engelm.) Parfitt & Pinkava and *Opuntia* sp.

tiquilia Westcott & Barr 1998:53, figs. 1, 4, 6, 7 (adult, ovipositor, ungues).
Type locality: TX, "Lower Pine Cyn.", Big Bend N.P. – Type depository: CASC 17815 (♀).
Taxonomy: Westcott & Barr 1998.
Ecology: Westcott & Barr 1998; MacRae 2006 (biol., distr.).
Distribution: **USA**: TX
Host(s): larvae in *Ephedra aspera* Engelm. ex S. Wats.; adults on flowers of *Tiquilia canescens* (DC.) Richards. and *T. greggii* (T. & G.) Richards.

tubulus (Fabricius) 1801:200 (*Buprestis*).
Type locality: Carolina – Type depository: UZMC.
synonym: *culta* (Weber) 1801:75 (*Buprestis*) – Synonymy: LeConte 1857a:7.
Type locality: Amer. – Type depository: unknown.
synonym: *quatuordecimguttata* (Fabricius) 1801:209 (*Buprestis*) – Synonymy: Waterhouse 1882:27.
Type locality: none given – Type depository: type lost.
synonym: *geranii* (Harris) 1829:2 (*Buprestis*) – Synonymy: LeConte 1857a:7.
Type locality: MA? – Type depository: MCZC (Lectotype not designated).
Taxonomy: Horn 1878 (as *culta*); Fall 1899.
Redescription: Horn 1878:22, plate 1, fig. 36 (elytron as *culta*); Wellso, *et al*. 1976: fig. 7 (procoxal setae); Bright 1987:38, fig. 73 (♂ genitalia).
Ecology: Knull 1920 (as *culta*); 1922; Vogt 1949b; Wellso 1974; Westcott, *et al*. 1979; Nelson 1987a; MacRae 1991; Nelson, *et al*. 1996 (distr.); MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.).
Distribution: **Canada**: ON; **USA**: AL, AR, CT, DC, DE, FL, GA, IA, IL, IN, KS, KY, LA, MA, MD, MI, MO, NC, NE, NJ, NY, OH, OK, PA, SC, TN, TX, VA, WV
Host(s): larvae in *Betula nigra* L., *Carya alba* (L.) Nutt., *C. glabra* (Mill.) Sweet, *C. illinoinensis* (Wangenh.) K. Koch, *C. ovata* (Mill.) K. Koch, *Celtis occidentalis* L., *Cercis canadensis* L., *C. c. var. texensis* (S. Wats.) M. Hopkins, *Crataegus* spp., *Gleditsia triacanthos* (L.), *Juglans nigra* L., *Ostrya virginiana* (Mill.) K. Koch, *Quercus alba* L., *Salix* sp., *Ulmus crassifolia* Nutt., *U. rubra* Muhl.; adults also on *Juniperus virginiana* L., *Quercus velutina* Lam., *Sapindus saponaria* L. var. *drummondii* (H. & A.) L. Benson, *Taxodium distichum* (L.) Rich.; and on flowers of *Achillea millefolium* L., *Amelanchier arborea* (Michx. f.) Fern., *Cardamine concetenara* (Michx.) Sw., *Centaurium maculosum* Lam., *Conradina canescens* Gray, *Cornus drummondi* C. A. Mey., *C. florida* L., *Crataegus* sp., *Daucus carota* L., *Fragaria* sp., *Geranium maculatum* L., *Glandularia canadensis* (L.) Nutt., *Hudsonia ericoides* L., *Hydrophyllum appendiculatum* Michx., *Hypericum perforatum* L., *Hypoxis hirsuta* (L.) Cov., *Iris* sp., *Krigia virginica* (L.) Willd., *Leucanthemum vulgare* Lam., *Leucothoe racemosa* (L.) Gray, *Linum sulcatum* Riddell, *Lithospermum canescens* (Michx.) Lehm., *Mimosa microphylla* Dry., *Minuartia nuttallii* (Pax) Briq., *Monarda russeliana* Nutt. ex Sims, *Opuntia ficus-indica* (L.) Mill., *Oxalis* sp., *Packera obovata* (Muhl. ex Willd.) Weber & Love, *P. plattensis* (Nutt.) Weber & Love, *Penstemon coboea* Nutt., *P. digitalis* Nutt. ex Sims, *P. grandiflorus* Nutt., *Phlox pilosa* L., *Potentilla simplex* Michx., *Prunus americana* Marsh., *Ranunculus harveyi* (Gray) Britt., *Rosa carolina* L., *R. setigera* Michx., *Rubus trivialis* Michx., *Ruellia humilis* Nutt., *R. strepens* L., *Sassafras albidum* (Nutt.) Nees, *Scutellaria incana* Biehler, *Stylophorum diphyllum* (Michx.) Nutt., *Taraxacum officinale* Wigg., *Tephrosia virginiana* (L.) Pers., *Thalictrum thalictroides* (L.) Eames & Boivin, *Tradescantia* sp. and *Viburnum rufidulum* Raf.

tuta Horn 1878:11, plate 1, fig. 11 (elytron).
Type locality: UT, St. George – Type depository: MCZC 8028 (Lectotype not designated).
synonym: *rubrosuffusa* Fall 1907:240 (as variety of *robusta*) – Synonymy: Barr 1975:419.
Type locality: CA, Mojave – Type depository: MCZC 24428.
synonym: *duboisi* Cazier 1938b:138 (♂, ♀) (as subspecies of *robusta*) – Synonymy: Cazier 1940b:59.
Type locality: CA, Death Valley, Furnace Creek – Type depository: AMNH (♀).
synonym: *moronga* Van Dyke 1943:102 – Synonymy: Barr 1975:419.
Type locality: CA, Riverside Co., Moronga Valley – Type depository: CASC 5337.
Taxonomy: Horn 1878; Fall 1899; Cazier 1940b; Barr 1975.
Redescription: Fall 1899:17; Akiyama & Ohmomo: fig. 208.
Ecology: Westcott, *et al*. 1979 (biol., distr.).
Distribution: **USA**: AZ, CA, NV, UT
Host(s): larvae in *Psorothamnus schottii* (Torr.) Barneby; adults also on *P. arborescens* (Gray) Barneby var. *simplicifolius* (Parish) Barneby, *P. polyadenius* (S. Wats.) Rydb., *Prosopis glandulosa* Torr.; and on flowers of *Encelia farinosa* T. & G., *E. frutescens* (Gray) Gray, *Salvia* sp. and *Stephanomeria pauciflora* (Torr.) Nelson.

uvaldensis Knull 1936:73.
Type locality: TX, Uvalde – Type depository: FMNH.
Taxonomy: Cazier 1940a.
Ecology: Vogt. 1949b (biol.); Westcott, *et al*. 1990 (distr.).
Distribution: **USA**: TX; also recorded from Mexico.
Host(s): adults on *Prosopis glandulosa* Torr.

vandykei Fall 1899:23.
Type locality: "Washington Territory" – Type depository: MCZC 24431 (Lectotype not designated).
Taxonomy: Fall 1899.
Redescription: Good 1925: plate 11, fig. 47 (wing); Bright 1987:37.
Ecology: Burke 1917b; Chamberlin 1917; Beer 1944; Barr 1971; Bright 1987 (biol., distr.).
Distribution: **Canada**: BC; **USA**: CA, ID, NV, OR, UT, WA
Host(s): larvae in *Ceanothus integerrimus* H. & A., *C. leucodermis* Greene, *C. velutinus* Dougl., *Quercus wislizeni* A. DC.; adults also on *Ceanothus oliganthus* Nutt., *Cercocarpus ledifolius* Nutt. and flowers of *Rosa* sp.

variegata LeConte 1852:67.
Type locality: NM, Santa Fe – Type depository: MCZC 2727 (Lectotype not designated).
synonym: *lucia* Fall 1901:307 – Synonymy: Barr 1975:420.
Type locality: AZ, Prescott – Type depository: MCZC 24421 (Lectotype not designated).
synonym: *distincta* Kerremans 1902:29 – Synonymy: Barr 1975:420.
Type locality: CO – Type depository: BMNH.
Taxonomy: Barr 1975.
Ecology: Westcott, *et al*. 1979 (distr.); MacRae & Nelson 2003 (biol.).
Distribution: **USA**: AZ, CO, NM, TX
Host(s): adults on flowers of *Machaeranthera bigelovii* (Gray) Greene and *Sphaeralcea* sp.

verecunda Barr 1972 [syn. of *plagiaticauda*]

verityi Westcott 1971b:11, figs. 7, 8, 14 (adults, ovipositor).
Type locality: CA, Riverside Co., 5 mi NW Palm Springs – Type depository: CASC 9853 (♀).
Taxonomy: Westcott 1971b.
Ecology: Westcott 1971b (biol., distr.); Bellamy 1982 (biol.).
Distribution: **USA**: CA
Host(s): adults on *Ephedra californica* S. Wats. and *Psorothamnus arborescens* (Gray) Barneby var. *simplicifolius* Barneby; also flowers of *Chaenactis fremontii* Gray and *Viguiera deltoidea* Gray.

vermiculata Knull 1947 [syn. of *vanduzeei*]

vernalis Barr 1972b:160, fig. 7 (adult).
Type locality: CA, Riverside Co., Palm Sprs., Tahquiz Cyn. – Type depository: CASC 11506 (♂).
misidentification: *flavosticta* of authors (in part), not *flavosticta* Horn 1878.
Taxonomy: Barr 1972b.
Ecology: Barr 1972b (biol., distr.).
Distribution: **USA**: CA; also recorded from Mexico.

Host(s): adults on flowers of *Encelia farinosa* T. & G., *Eriodictyon crassifolium* Benth. and *Viguiera parishii* Greene.

vulturei Knull 1938d:228.
Type locality: AZ, Vulture Mtns., near Wickenburg – Type depository: FMNH (♀).
Ecology: Barr 1941a; Westcott 2005 (biol.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, CA
Host(s): larva in *Quercus beriberidifolia* Liebm.; adults on *Q. beriberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.) and *Q. wislizeni* A. DC.; also flowers of *Encelia actoni* Elmer, *Eriogonum fasciculatum* (Benth.) T. & G. and *Sphaeralcea ambigua* Gray.

wenzeli Van Dyke 1919a:154, plate 7, fig. 4 (elytron).
Type locality: TX, Chisos Mtns. – Type depository: CASC 3259.
Redescription: Cazier 1951b: fig. 16 (adult).
Ecology: Cazier 1951b (distr.); Westcott, *et al*. 1979 (biol.); MacRae 2006 (biol., distr.).
Distribution: **USA**: TX; also recorded from Mexico.
Host(s): larvae in *Acacia constricta* Benth.; adults also on *A. farnesiana* (L.) Willd.

wheeleri Van Dyke 1919a:155, plate 7, fig. 5 (elytron).
Type locality: AZ, Santa Catalina Mts., Sabino Cyn. – Type depository: CASC 3260.
Ecology: Westcott, *et al*. 1979 (biol., distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): larvae in *Celtis ehrenbergia* (Klot.) Liebm.; adults also on *Cercidium* sp. and various flowers.

wickenburgana Knull 1939:28 (♂, ♀), plate 1, fig. 1 (adult).
Type locality: AZ, Wickenburg – Type depository: FMNH (♂).
Ecology: Westcott, *et al*. 1979 (biol., distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): adults on *Parkinsonia* sp.; also on flowers of various Asteraceae.

xanthosticta Laporte & Gory 1835:4.
Type locality: "Columbie" – Type depository: MNHN (Lectotype not designated).
synonym: *bisseptemguttata* Marseul 1867:48 – Synonymy: Kerremans 1906:57.
Type locality: "Columbie" – Type depository: MNHN?
synonym: *amazonica* Nonfried 1895:303 – Synonymy: Kerremans 1906:57.
Type locality: "Minas Geraes und Amazonenstromgebiet" – Type depository: MNHN? (Lectotype not designated).
synonym: *confusa* Fisher 1925:41 (new name proposed for *cubaecola* Kerremans not Jacquelin du Val) – Synonymy: Barr 1992:83.
misidentification: *cubaecola* of authors, not *cubaecola* Jacquelin du Val 1857.
misidentification: *pulcherrima* of authors, not *pulcherrima* Jacquelin du Val 1857.
Taxonomy: Fall 1899 (as *pulcherrima*).
Redescription: Fall 1899:16 (as *pulcherrima*).
Ecology: MacRae 2006 (biol., distr.).
Distribution: **USA**: FL; also recorded from South America and West Indies.
Host(s): adults on *Conocarpus erectus* L. and *Suriana maritima* L.; also on flowers of *Laguncularia racemosa* (L.) Gaertn. f.

yuccavora Knull 1962:2 (♂, ♀), fig. 1 (adult ♂).
Type locality: AZ, Chiricahua Mtns., 5100' – Type depository: FMNH (♂).
Taxonomy: Knull 1962.
Ecology: Knull 1962 (biol., distr.); Westcott, *et al*. 1979 (biol.).
Distribution: **USA**: AZ
Host(s): larvae in dead flower stalks of *Yucca* sp.; adults also on flowers of *Allionia incarnata* L.

yumae Knull 1937 [ssp. of *pubiventris*]

subgenus *Acmaeodera* (*Squamodera*) Nelson 1996
Squamodera Nelson 1996a:167 (as genus), figs. 1–14 (wing, ♂ genitalia, ovipositor, adults).
Type species: *Acmaeodera vanduzeei* Van Dyke 1934 (fixed by original designation).
Taxonomy: Nelson 1996a; Bellamy & Nelson 2002; Bellamy 2003a; Davidson 2003 (as subgenus).
Ecology: Nelson 1996a.
Key(s): Nelson 1996a:169.

barri Cazier 1940b:58.
Type locality: CA, Riverside Co., Painted Cyn. – Type depository: AMNH (♂).
Taxonomy: Cazier 1940b; Nelson 1996a.
Redescription: Nelson 1996a:174 (♂, ♀), figs. 6, 14 (ovipositor, adult).
Ecology: Knull 1950; Nelson 1962 (distr.); 1996a (biol., distr.); Walters & Bellamy 1990 (biol.).
Distribution: **USA**: AZ, CA; also recorded from Mexico: BCN.
Host(s): larvae in *Psorothamnus spinosa* (Gray) Barneby; adults also on *Bebbia juncea* (Benth.) Greene, *Croton* sp., *Encelia farinosa* T. & G., *Hymenoclea salsola* Gray and *Stephanomeria* sp.

constricticollis Knull 1937d:301.
Type locality: AZ, Phoenix – Type depository: FMNH.
Taxonomy: Knull 1937d; Nelson 1996a.
Redescription: Nelson 1996a:173, figs. 5, 13 (ovipositor, adult).
Ecology: Westcott 1991; Nelson 1996a (biol., distr.).
Distribution: **USA**: AZ, CA
Host(s): Larvae in *Atriplex canescens* (Pursh) Nutt.; adults also on *Pluchea sericea* (Nutt.) Cov.

ephedrae Barr 1942:113.
Type locality: CA, Riverside Co., 5 mi N Palm Springs – Type depository: CASC 5024.
Taxonomy: Barr 1942; Nelson 1996a.
Redescription: Nelson 1996a:172, figs. 4, 12 (ovipositor, adult).
Ecology: Barr 1942; Walters & Bellamy 1990; Nelson 1996a (biol., distr.).
Distribution: **USA**: AZ, CA
Host(s): larvae in *Palafoxia arida* B. Turner & ♂ Morris, *Psorothamnus arborescens* (Gray) Barneby var. *simplicifolius* (Parish) Barneby and *P. emoryi* (Gray) Rydb.; adults also on *Cercidium floridum* Gray, *Ephedra californica* S. Wats., *Eriogonum deserticola* S. Wats., *E. inflatum* Torr. & Frem., *Frankenia palmeri* S. Wats., *Hymenoclea salsola* Gray, *Psorothamnus spinosus* (Gray) Barneby and *Tiquilia plicata* (Torr.) Richards.

vanduzeei Van Dyke 1934:64.
Type locality: Mexico: Baja CA, Angel de la Guardia Isld., Pond Isld. Bay Gulf Calif. – Type depository: CASC 3755.
synonym: *fisheri* Cazier 1940a:19 – Synonymy: Nelson 1996a:169.
Type locality: CA, Mojave – Type depository: USNM 54787.
synonym: *vermiculata* Knull 1947b:174 (♂, ♀) (as variety of *fisheri*) – Synonymy: Nelson 1996a:169.
Type locality: CA, Palm Springs – Type depository: FMNH (♂).
synonym: *nanbrownae* Figg–Hoblyn 1953:219, fig. 1 (adult) – Synonymy: Nelson 1996a:169.
Type locality: NV, Esmeralda Co., 10 mi NW Tonopah – Type depository: CASC 8111.
Taxonomy: Van Dyke 1934; Cazier 1940a; Nelson 1996a.
Redescription: Van Dyke 1942: plate 6, fig. 9 (adult); Nelson 1996a:169, figs. 1–3, 7–11 (wing, ♂ genitalia, ovipositor, adults).
Ecology: Barr 1941a (as *fisheri*); Nelson 1960; 1962; 1968a (all as *vermiculata*); Westcott, *et al.* 1979; Bellamy 1982; Westcott 1991 (all as *fisheri*); Nelson 1996a (biol., distr.).
Distribution: **USA**: AZ, CA, NV; also recorded from Mexico: BCN and BCS.
Host(s): larvae in *Argythamnia bandegeei* Millsp., *Atriplex lentiformis* (Torr.) S. Wats., *Cercidium microphyllum* (Torr.) Rose & Johnston., *Eriogonum inflatum* Torr. & Frem. and mallow; adults also on *Acacia greggii* Gray, *Atriplex confertifolia* (Torr. & Frem.) S. Wats., *Cercocarpus ledifloius* Nutt., *Eriogonum deserticola* S. Wats., *Ferocactus gracilis* Gates, *Hyptis emoryi* Torr., *Justicia californica* (Benth.) D. Gibson, *Opuntia* spp., *Pluchea sericea* (Nutt.) Cov., *Prosopis glandulosa* Torr. var. *torreyana* (L. Benson) Johnston and *Psorothamnus spinosus* (Gray) Barneby.

Genus *Acmaeoderopsis* Barr 1974
Acmaeoderopsis Barr 1974:11.
Type species: *Acmaeodera squamosa* Van Dyke 1919 (fixed by original designation) (= *junki* (Théry 1929)).
Taxonomy: Barr 1974; Bellamy & Nelson 2002; Bellamy 2003a.

chisosensis (Knull) 1952b:349 (*Acmaeodera*) (♂, ♀), fig. 1 (adult).
Type locality: TX, Brewster Co., Chisos Mtns. – Type depository: FMNH (♂).

Taxonomy: Barr 1974.
Ecology: Nelson & Westcott 1976 (biol.); Nelson, *et al*. 1981; Westcott, *et al*. 1990; Davidson & Davidson 2005 (distr. & biol.); MacRae 2006 (biol., distr.).
Distribution: **USA**: TX; also recorded from Mexico.
Host(s): larvae in *Acacia constricta* Benth.; adults also on *A. farnesiana* (L.) Willd. and *Prosopis glandulosa* Torr.

guttifera (LeConte) 1859:72 (*Acmaeodera*).
Type locality: CA, Fort Tejon – Type depository: MCZC 2732 (♂).
synonym: *versuta* (Horn) 1878:21 (*Acmaeodera*), plate 1, fig. 33 (elytron) – Synonymy: Leng 1920:178.
Type locality: CA, Mariposa – Type depository: MCZC 33805 (♀).
Taxonomy: Horn 1878; Fall 1899; Barr 1974.
Redescription: Horn 1878:21, plate 1, fig. 34 (elytron); Fall 1899:33; Akiyama & Ohmomo 2000: fig. 172.
Ecology: Fall 1899 (distr.); White 1939; Tilden 1955; Nelson 1959; Bellamy 1982; MacRae & Nelson 2003 (biol.).
Distribution: **USA**: CA
Host(s): larvae in *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.), *Q. douglasii* H. & A. and *Q. wislezeni* A. DC.; adults also on *Arctostaphylos* sp., *Ceanothus crassifolius* Torr., *C. oliganthus* Nutt., *C. greggii* Gray var. *perplexans* (Trel.) Jeps., *Cercidium* sp., *Cercocarpus betuloides* T. & G., *Condalia* sp., *Rhamnus californica* Esch., *R. crocea* Nutt., *Yucca* sp. and *Ziziphus parryi* Torr.

hassayampae (Knull) 1961:80 (*Acmaeodera*) (♂, ♀).
Type locality: AZ, Wickenburg – Type depository: FMNH (♂).
misidentification: *hulli* of authors, not *hulli* Knull 1928.
Taxonomy: Barr 1974.
Ecology: Nelson, *et al*. 1981 (distr.); Nelson 1965 (biol.); Davidson & Davidson 2005 (biol., distr.).
Distribution: **USA**: AZ, CA, NM; also recorded from Mexico.
Host(s): larvae in *Acacia greggii* Gray; adults also on *Atriplex canescens* (Pursh) Nutt., *Cercidium floridum* Gray, *Mimosa* sp. and *Prosopis* sp.

hualpaiana (Knull) 1952b:349 (*Acmaeodera*) (♂, ♀), fig. 5 (adult).
Type locality: AZ, Hualpai Mtns. – Type depository: FMNH (♂).
Taxonomy: Barr 1974.
Ecology: Nelson & Westcott 1976; Nelson, *et al*. 1981 (biol.); Westcott 2005 (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, CA, NV
Host(s): larvae in *Prosopis* sp.; adults also on *Acacia constricta* Benth., *A. greggii* Gray and *Prosopis glandulosa* Torr. var. *torreyana* (Benson) Johnston.

hulli (Knull) 1928:315 (*Acmaeodera*).
Type locality: NM, Mesilla Park – Type depository: FMNH (♀).
Taxonomy: Barr 1974.
Redescription: Cazier 1951b: fig. 23 (adult); Akiyama & Ohmomo 2000: fig. 171.
Ecology: Cazier 1951b; Nelson & Westcott 1976; Nelson, *et al*. 1981; Westcott, *et al*. 1990; Davidson & Davidson 2005; MacRae 2006 (biol., distr.); Wellso & Jackman 2006 (distr.).
Distribution: **USA**: AZ, NM, TX; also recorded from Mexico.
Host(s): larvae in *Celtis* sp., *Prosopis glandulosa* Torr. and *Quercus* sp.; adults also on *Acacia* sp., *Celtis ehrenbergia* (Klot.) Liebm., *Larrea tridentata* (DC.) Cov. and *Mimosa* sp.

jaguarina (Knull) 1938c:135 (*Acmaeodera*) (♂, ♀).
Type locality: AZ, Yuma – Type depository: FMNH (♂).
Taxonomy: Barr 1974.
Ecology: Barr 1941a (biol., distr.).
Distribution: **USA**: AZ, CA
Host(s): larvae in *Salix gooddingii* Ball; adults also on *Pluchea sericea* (Nutt.) Cov. and *Prosopis pubescens* Benth.

junki (Théry) 1929:115 (*Acmaeodera*, replacement name for *squamosa* Van Dyke 1919).
Type locality: AZ, Florence – Type depository: ANSP 8197 (♀).
synonym: *squamosa* Van Dyke 1919:186 (♂, ♀) (*Acmaeodera*) (preoccupied: *squamosa* Théry 1912).

Taxonomy: Barr 1974.
Redescription: Cazier 1951b: figs. 21, 28 (adult, elytral seta); Akiyama & Ohmomo 2000: fig. 170.
Ecology: Cazier 1951b; Nelson 1965; Nelson & Westcott 1976 (distr.); Nelson & MacRae 1990; Davidson & Davidson 2005; Davidson 2006 (biol.).
Distribution: **USA**: AZ, CA, NM, TX; also recorded from Mexico.
Host(s): larvae in *Acacia greggii* Gray, *Cercidium floridum* Gray, *C. microphyllum* Torr., "Palo Verde" and *Prosopis glandulosa* Torr.; adults also on *Acacia constricta* Benth., *Jatropha multifida* L. and *Prosopis pubescens* Benth.

paravaripilis (Barr) 1972b:189 (*Acmaeodera*), fig. 22 (adult).
Type locality: AZ, Globe – Type depository: CASC 11500 (♂).
misidentification: *varipilis* of authors, not *varipilis* Van Dyke 1934.
Taxonomy: Barr 1972b; 1974.
Ecology: Barr 1972b (biol., distr.); Nelson, *et al*. 1981 (biol.).
Distribution: **USA**: AZ
Host(s): larvae in *Acacia greggii* Gray; adults also on *Mimosa* sp. and *Prosopis glandulosa* Torr.

prosopis Davidson 2006:214 (♂, ♀), figs. 1, 2, 4, 9–12 (adult, ♂ genitalia, setae).
Type locality: CA, San Bernardino Co., SW jct. Hwy. 15 & Basin Road – Type depository: CSCA (♂).
Ecology: Davidson 2006 (biol.).
Distribution: **USA**: CA
Host(s): adults on *Prosopis glandulosa* Torr.

rockefelleri (Cazier) 1951b:9 (*Acmaeodera*) (♂, ♀), figs. 22, 27 (adult, elytral seta).
Type locality: Mexico: Chihuahua, Samalayuca – Type depository: AMNH (♂).
Taxonomy: Barr 1974.
Ecology: Nelson & Westcott 1976; Davidson & Davidson 2005 (biol., distr.).
Distribution: **USA**: NM, TX; also recorded from Mexico.
Host(s): adults on *Acacia constricta* Benth. and *Prosopis glandulosa* Torr.

squamosa Van Dyke 1919 [syn. of *junki*]

versuta (Horn 1878) [syn. *guttifera*]

westcotti (Barr) 1972b:186 (*Acmaeodera*), fig.21 (adult).
Type locality: CA, Imperial Co., 15 mi E Calexico – Type depository: CASC 11507 (♂).
Taxonomy: Barr 1972b; 1974.
Ecology: Barr 1972b (biol., distr.).
Distribution: **USA**: CA; also recorded from Mexico.
Host(s): adults on *Acacia* sp., *Atriplex lentiformis* (Torr.) S. Wats., *Olneya tesota* Gray, *Prosopis chilensis* (Molina) Stuntz, *P. glandulosa* Torr. and *P. pubescens* Benth.

Genus *Anambodera* Barr 1974

Anambodera Barr 1974:9.
Type species: *Acmaeodera gemina* Horn 1878 (fixed by original designation).
Taxonomy: Barr 1974; Bellamy & Nelson 2002; Bellamy 2003a.
Redescription: Bright 1987:39.

gemina (Horn) 1878:23 (*Acmaeodera*), plate 1, fig. 37 (elytra).
Type locality: CA, San Bernardino Valley – Type depository: MCZC 33806 (Lectotype not designated).
Taxonomy: Horn 1878; Fall 1899; Barr 1974.
Redescription: Fall 1899:34; Bright 1987:40; Akiyama & Ohmomo 2000: fig. 168.
Ecology: Chamberlin 1917; White 1939; Bright 1987 (biol., distr.); Fall 1899; Nelson 1962 (distr.).
Distribution: **Canada**: BC; **USA**: AZ, CA, ID, MT, OR, WA; also recorded from Mexico.
Host(s): unknown.

lucernae (Knull) 1973:299 (*Acmaeodera*), fig. 1 (adult).
Type locality: CA, San Bernardino Co., Lucerne Valley – Type depository: FMNH (♀).
Taxonomy: Barr 1974.
Ecology: Westcott 2001b (biol., distr.); 2005 (distr.).
Distribution: **USA**: AZ, CA, NV
Host(s): adults on *Sphaeralcea* sp.

lucksani Walters 1982:180 (♂, ♀), fig. 1 (♂ holotype).
Type locality: CA, Riverside Co., Pinyon Flat – Type depository: LACM (♂).
Taxonomy: Walters 1982.
Ecology: Walters 1982 (biol., distr.).
Distribution: **USA**: CA
Host(s): adults on *Eriastrum densifolium* (Benth.) Mason ssp. *elongatum* (Benth.) Mason, *Salvia* sp. and *Sphaeralcea ambigua* Gray.

nebulosa (Horn) 1894:376 (*Acmaeodera*).
Type locality: CA, Napa Co. – Type depository: MCZC 33813 (Lectotype not designated).
Taxonomy: Barr 1974.
Ecology: White 1939 (biol.).
Distribution: **USA**: CA
Host(s): adults on dry grass and small yellow flowered Asteraceae.

palmarum (Timberlake) 1939:181 (*Acmaeodera*).
Type locality: CA, 5 mi S Palm Springs – Type depository: CASC 12190 (♂).
Taxonomy: Barr 1974.
Redescription: Akiyama & Ohmomo 2000: fig. 169.
Ecology: Nelson 1960b; 1962; 1968a (distr.); Nelson, *et al.* 1981 (biol.).
Distribution: **USA**: CA, NV; also recorded from Mexico.
Host(s): adults on flowers of *Dicoria canescens* Gray, *Eriogonum inflatum* Torr. & Frem., *Geraea canescens* Gray and *Hyptis emoryi* Torr.

santarosae (Knull) 1960c:322 (*Acmaeodera*) (♂, ♀).
Type locality: CA, Riverside Co., Santa Rosa Mtns., 4000' – Type depository: FMNH (♂).
Taxonomy: Barr 1974.
Ecology: Knull 1960c (biol., distr.).
Distribution: **USA**: CA
Host(s): adults on flowers *Eriogonum fasciculatum* (Benth.) T. & G.

Tribe Ptosimini Kerremans 1902
Ptosimites Kerremans 1902:37.
Type genus: *Ptosima* Dejean 1833.
Polycestides Lacordaire 1857 (part).
Julodini LeConte 1861 (part).
Acmaeoderites Kerremans 1893 (part).
Ptosimites Kerremans 1902.
Ptosimini: Bedel 1921:169.
Acmaeoderinae Arnett 1962 (part).
Classification: Cobos 1955; 1980; Nelson 1982; Bellamy 1985; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Key(s): Cobos 1980:46; Bellamy & Nelson 2002:102 (genera).

Genus *Ptosima* Dejean 1833
Ptosima Dejean 1833:79.
Type species: *Buprestis novemmaculata* Fabricius 1775 (fixed by monotypy) (= *undecimmaculata* (Herbst 1784)).
Immature stages: Burke 1917a: plate 5, fig. 3 (larva); Schaefer 1949:78, plate 5, fig. 56 (larva); Bílý & Volkovitsh 1996.
Taxonomy: Kerremans 1907; Nelson 1978; Bellamy 1997d; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Redescription: Kerremans 1907:539; Schaefer 1949:77; Nelson 1978:328.
Ecology: Schaefer 1949 (biol.); Nelson 1978 (biol., distr.).
Key(s): Kerremans 1907:540 (world); Nelson 1978:329 (No. Amer.).

gibbicollis (Say) 1823:161 (*Buprestis*).
Type locality: AR – Type depository: type destroyed.
synonym: *luctuosa* Gory 1840:71, plate 13, fig. 69 (adult) – Synonymy: Crotch 1873:89.

Type locality: "Amer. Bor." – Type depository: MNHN.
Immature stages: Burke 1917a: pl.5, fig. 3A, C (larva); Solomon 1995, fig. 110, B (larval workings).
Taxonomy: Nelson 1978.
Redescription: Knull 1925: plate 2 (adult); Good 1925: plate 10 (wing); Nelson 1978:332, fig. 4 (adult); Akiyama & Ohmomo 2000: fig. (115) (♂, ♀).
Ecology: Knull 1920; Hespenheide 1974; Nelson 1978 (biol., distr.); Nelson, *et al*. 1981; Nelson 1987a; Nelson & MacRae 1990 (distr.); Solomon 1995 (biol.).
Distribution: **USA**: AL, AR, DC, FL, GA, IA, IL, IN, KS, KY, LA, MD, MI, MO, MS, NC, NJ, OH, OK, PA, SC, TN, TX, VA, WV
Host(s): larvae in *Cercis canadensis* L.; adults also on *Prunus serotina* Ehrh. and *Sassafras albidum* (Nutt.) Nees.

idolynae Frost 1923:279.
Type locality: MS, Agric. College – Type depository: MCZC 35057.
Taxonomy: Frost 1923; Nelson 1978.
Redescription: Nelson 1978:335 (♂, ♀), figs. 6–8 (adult); Akiyama & Ohmomo 2000: fig. (113) (♂, ♀).
Ecology: Knull 1970; Nelson 1978 (biol., distr.); Nelson, *et al*. 1981; Nelson 1987a (distr.).
Distribution: **USA**: AR, MS, OK, TX
Host(s): larvae in *Crataegus* sp.; adults also on *Gleditsia triacanthos* L.

laeta Waterhouse 1882:20.
Type locality: Mexico: Playa Vicente – Type depository: BMNH.
synonym: *schaefferi* Chamberlin 1926:235 (as variety of *gibbicollis*) – Synonymy: Nelson 1978:333.
Type locality: TX, Cypress Mills – Type depository: CASC 5474.
Taxonomy: Waterhouse 1882; Nelson 1978.
Redescription: Nelson 1978:334 (♂, ♀), fig. 5 (adult); Akiyama & Ohmomo 2000: fig. 114 (♂).
Ecology: Knull 1970 (as *schaefferi*); Nelson 1978 (biol., distr.).
Distribution: **USA**: TX; also recorded from Mexico.
Host(s): larvae in *Cercis canadensis* L var. *texensis* (S. Wats.) M. Hopkins.

luctuosa Gory 1840 [syn. of *gibbicollis*]

schaefferi Chamberlin 1926 [syn. of *laeta*]

walshii LeConte 1863:81.
Type locality: IL, Rock Island – Type depository: MCZC 2735 (♀) (Lectotype designation: Nelson 1978:332).
Taxonomy: Nelson 1978.
Redescription: Nelson 1978:329 (♂, ♀), figs.1–3 (adult & parts).
Ecology: Nelson 1978 (distr.); Nelson, *et al*. 1981 (biol.); Westcott 1991; MacRae 2006 (biol., distr.).
Distribution: **USA**: IA, IL, KS, MI, MN, MO, MS, OH, OK, TX, WI
Host(s): larvae in *Quercus macrocarpus* Michx.

Tribe Thrincopygini LeConte 1861

Thrincopygini LeConte 1861:154.
Type genus: *Thrincopyge* LeConte 1858.
Classification: LeConte & Horn 1883; Kerremans 1893; 1902; 1907; Arnett 1962; Nelson 1980c; 1982; Bellamy 1985; Hołyński 1993; Kolibác 2001; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Key(s): Hołyński 1993:33 (subtribes); Bellamy & Nelson 2002:101 (genera).

Genus *Thrincopyge* LeConte 1858

Thrincopyge LeConte 1858:17.
Type species: *Buprestis ambiens* LeConte 1854 (fixed by subsequent designation: Chamberlin 1926:240).
Immature stages: Burke 1917a: plate 4, fig. 3 (larva); Bílý & Volkovitsh 1996.
Taxonomy: Kerremans 1907; Nelson 1980c; Hołyński 1993; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Redescription: Kerremans 1907:595; Nelson 1980c:298.
Ecology: Nelson 1980c.
Key(s): Horn 1885:147; Kerremans 1907:597; Nelson 1980c:299.

alacris LeConte 1858:17.
Type locality: AZ – Type depository: MCZC 2713 (♀) (Lectotype designation: Nelson 1980c:302).
synonym: *strandi* Obenberger 1936a:104 (as variety of *alacris*) – Synonymy: Nelson 1980c:301.
Type locality: TX – Type depository: NMPC.
Taxonomy: Kerremans 1907; Nelson 1980c.
Redescription: Kerremans 1907:598; Good 1925: plate 10 (wing); Nelson 1980c:301 (♂, ♀), figs. 2, 11 (adult, ♂ genitalia); Ohmomo & Akiyama 1997: figs. 5–7; Akiyama & Ohmomo 2000: fig. 154 (♂, ♀).
Ecology: Cazier 1951b; Nelson & Westcott 1976; Nelson 1980c (biol., distr.); Westcott, *et al.* 1990 (distr.); Villalón, *et al.* 1997 (biol.).
Distribution: **USA**: AZ, NM, TX; also recorded from Mexico.
Host(s): larvae in *Beaucarnea recurvata* Lem., *Dasylirion leiophyllum* Engelm. and *D. wheeleri* S. Wats.

ambiens (LeConte) 1854:83 (*Buprestis*).
Type locality: TX, Frontera, Rio Grande – Type depository: MCZC 2714 (♀) (Lectotype designation: Nelson 1980c:305).
synonym: *laetifica* Horn 1885:146 – Synonymy: Nelson 1980c:304.
Type locality: TX – Type depository: MCZC 33802 (♂) (Lectotype designation: Nelson 1980c:307).
Immature stages: Burke 1917a: plate 4, fig. 3 (larva).
Taxonomy: Kerremans 1907; Nelson 1980c.
Redescription: Kerremans 1907:599; Nelson 1980c:304 (♂, ♀), figs. 4, 5, 7–10, 12 (adult, ♂ genitalia, parts); Ohmomo & Akiyama 1997: figs. 10, 11 (as *T. amabuens*, *lapsus calami*); Akiyama & Ohmomo 2000: fig. 156 (♂, ♀).
Ecology: Burke 1917a; 1917b (biol.); Nelson & Westcott 1976; Nelson 1980c (biol., distr.); Westcott, *et al.* 1990 (distr.).
Distribution: **USA**: AZ, NM, TX; also recorded from Mexico.
Host(s): larvae in *Dasylirion wheeleri* S. Wats.; adults also on *D. leiophyllum* Engelm., *Nolina microcarpa* S. Wats. and *N. bigelovii* (Torr.) S. Wats.

Chrysophana generic group (Tribal level) sensu Volkovitsh 2001

Chrysophana generic group Volkovitsh 2001:53.
Classification: Bellamy 2003a

Genus *Beerellus* Nelson 1982

Beerellus Nelson 1982:438, figs. 2, 9 (tarsus, wing).
Type species: *Beerellus taxodii* Nelson 1982 (fixed by original designation).
Taxonomy: Nelson 1982; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Ecology: Nelson 1982.

taxodii Nelson 1982:438, figs. 2, 9, 43–47 (tarsus, wing, adult, antenna).
Type locality: GA, Clinch Co., 9 mi NE Fargo – Type depository: USNM 77534 (♀).
Taxonomy: Nelson 1982.
Ecology: Nelson 1982 (biol., distr.).
Distribution: **USA**: GA
Host(s): larvae in *Taxodium distichum* (L.) Rich.

Genus *Chrysophana* LeConte 1860

Chrysophana LeConte 1860:219.
Type species: *Ancylochira placida* LeConte 1854 (fixed by monotypy).
Taxonomy: Cobos 1955; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Ecology: Burke 1917a (biol.).
Key(s): Barr 1971.

conicola Van Dyke 1937:105 (as subspecies of *placida*)
Type locality: CA, Mt. St Helena – Type depository: CASC 4241.
Immature stages: Keen 1958:37, fig. 2 (larva in cone).

Taxonomy: Barr 1971.
Ecology: Keen 1958; Barr 1971 (biol., distr.).
Distribution: **USA**: CA, OR
Host(s): larvae in cones of *Pinus attenuata* Lemmon and *P. coulteri* D. Don.

placida (LeConte) 1854:17 (*Ancylochira*).
Type locality: OR – Type depository: MCZC 2736.
unavailable name: *coerulans* Obenberger 1924:100 (as aberration of *placida*).
Type locality: CA – Type depository: NMPC.
synonym: *strandi* Obenberger 1936a:106 (as variety of *placida*).
Type locality: CA, Yosemite Valley – Type depository: NMPC.
synonym: *cupriola* Van Dyke 1937:105 (as variety of *placida*).
Type locality: CA, Tulare Co., Atwells Mill – Type depository: CASC 4240.
Immature stages: Burke 1917a: plate 5, fig. 1 (larva).
Redescription: Good 1925: plate 10 (wing); Cobos 1955: figs. 2–5 (wing, ovipositor, ♂ genitalia); Barr 1971: plate 8 (adult); Akiyama & Ohmomo 2000: fig. 125.
Ecology: Chamberlin 1917; Burke 1917c; 1920a (biol.); Bright 1987; Westcott 1991; Davies 1991; MacRae & Nelson 2003 (distr.).
Distribution: **Canada**: AB, BC; **USA**: AZ, CA, CO, ID, MT, NE, NM, NV, OR, SD, UT, WA
Host(s): larvae in *Abies concolor* (Gord. & Glend.) Lindl., *A. lasiocarpa* Nutt., *A. magnifica* A. Murr., *Pinus contorta* Loud., *P. c.* var. *murrayana* (Grev. & Balf.) Critchf., *P. flexilis* James, *P. jeffreyi* Grev. & Balf., *P. lambertiana* Dougl., *P. monophylla* Torr. & Frem., *P. monticola* Dougl., *P. ponderosa* Laws., *P. sabiniana* Dougl., *Pseudotsuga menziesii* (Mirb.) Franco and *Tsuga mertensiana* (Bong.) Carr.

Tribe Polycestini Lacordaire 1857
Polycestides Lacordaire 1857:61.
Type genus: *Polycesta* Dejean 1833.
Exscutellatae (Section 2) Schönherr 1817 (part).
Chrysochroites Laporte & Gory 1837 (part).
Polycestides Lacordaire 1857.
Julodini LeConte 1861 (part).
Acmaeoderini Kerremans 1893 (part).
Polycestites Kerremans 1902 (part).
Acmaeoderinae Arnett 1962 (part).
Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1902; 1905; Cobos 1955; 1980; 1981; Arnett 1962; Nelson 1982; Bellamy 1985; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2000b; 2003a.
Key(s): Kerremans 1905:373; Cobos 1980:25, 87 (genera); Hołyński 1993 (subtribes); Bellamy & Nelson 2002:102 (genera).

Genus *Polycesta* Dejean 1833
Polycesta Dejean 1833:78.
Type species: *Buprestis porcata* Fabricius 1775 (fixed by monotypy).
Lycaste Gistel 1834:10 – Synonomy: Mannerheim 1837:36.
Type species: *Buprestis porcata* Fabricius (fixed by monotypy).
Taxonomy: Barr 1949 (revision of USA. spp.); Cobos 1980; 1981 (revision of subfamily); Bílý & Bellamy 1996; Nelson 1997b; Bellamy 1997d; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Redescription: Barr 1949:7; Cobos 1981:59.
Ecology: Barr 1949 (biol., distr.).
Key(s): Barr 1949:10 (USA.); Cobos 1981:62 (subgenera).

subgenus *Polycesta* (*Polycesta*) Dejean 1833
Polycesta Dejean 1833:78.
Type species: *Buprestis porcata* Fabricius 1775.

angulosa Jacquelin du Val 1856:62.
Type locality: Cuba – Type depository: IZAC? (MNHN).
synonym: *obtusa* LeConte 1858:68 – Synonomy: Schaeffer 1906:23.
Type locality: PA, near Philadelphia (error). Type depository: MCZC 2718 (♂).
misidentification: *excavata* of authors (in part), not *excavata* Blanchard 1846.
Taxonomy: Barr 1949; Cobos 1981.
Redescription: Barr 1949:20 (♂, ♀), fig. 2 (♂ genitalia).
Ecology: Barr 1949 (biol., distr.); Westcott 1991 (biol.).
Distribution: **USA**: AL, FL; also recorded from the West Indies.
Host(s): larvae in *Coccolobis laurifolia* Jacq. and *Metopium toxiferum* Kr. & Urb.
goryi Saunders 1871:58 (replacement name for *depressa* Gory & Laporte 1838).
synonym: *depressa* Gory & Laporte 1838:3 (primary junior homonym; preoccupied: *depressa* Linnaeus 1771:533).
Type locality: Caienne – Type depository: MNHN.
synonym: *cribrata* Thomson 1878:44 – Synonymy: Kerremans 1906:481.
Type locality: Caracas – Type depository: MNHN (♂).
synonym: *abdita* Barr 1949:17 – Synonymy: Cobos 1981:68.
Type locality: FL, Chocoloskee – Type depository: USNM 59153 (♂).
Taxonomy: Cobos 1981.
Redescription: Barr 1949:17 19 (♂, ♀), fig. 1 (♂ genitalia, as *abdita*); Cobos 1981: figs. 87–89 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 141 (♂).
Ecology: Barr 1949 (distr. & biol. as *abdita*); Beer 1970 (biol., as *abdita*); Westcott, *et al.* 1990 (distr.).
Distribution: **USA**: FL; also recorded from Mexico, South America and West Indies.
Host(s): larvae in *Casuarina equisetifolia* L., *Conocarpus erectus* L. and *Laguncularia racemosa* (L.) Gaertn. f.

subgenus *Polycesta* (*Arizonica*) Cobos 1981
Polycesta (*Arizonica*) Cobos 1981:63.
Type species: *Polycesta arizonica* Schaeffer 1906 (absolute tautonomy).
Taxonomy: Cobos 1981; Bílý & Bellamy 1996; Nelson 1997b.
Key(s): Cobos 1981:62.

arizonica arizonica Schaeffer 1906:21.
Type locality: AZ, Cochise Co., Palmerlee – Type depository: USNM 43632 (♂) (Lectotype designation: Bellamy & Nelson 1990:295).
Taxonomy: Barr 1949; Cobos 1981.
Redescription: Barr 1949:12 (♂, ♀), fig. 3 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 143 (♂, ♀).
Ecology: Duncan 1934a; Barr 1949; Nelson & MacRae 1990 (biol.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, NM, TX
Host(s): larvae in *Quercus arizonica* Sarg., *Q. emoryi* Torr., *Q. gravesii* Sudw., *Q. hypoleucoides* Camus and *Q. pungens* Liebm. var. *vaseyana* (Buckl.) C.H. Muller.
aruensis Obenberger 1924:100.
Type locality: "Ins. Aru" (sic) Ariz. – Type depository: NMPC 19654 (♀).
synonym: *californica* Ménétriés 1859:180 – Synonymy: Nelson 1980a:94 (as *deserticola*).
Type locality: "California Sept." – – Type depository: ZIN.
synonym: *deserticola* Barr 1974:6 – Synonymy: Bílý & Bellamy 1996.
Type locality: CA, Riverside Co., Painted Cyn. – Type depository: CASC 12301 (♂) (Lectotype designation: Nelson 1980a:94, as *deserticola*).
misidentification: *velasco* of authors, not *velasco* Gory & Laporte 1838.
Immature stages: Burke 1917a: plate 4, fig. 4 (larva as *velasco*).
Taxonomy: Cobos 1981.
Redescription: Barr 1974:6 (♂, ♀); Cobos 1981: fig. 86, (♂ gent.), 91 (♂ silhouette); Nelson, *et al.* 1996 (variation) (all as *deserticola*); Akiyama & Ohmomo 2000: fig. 144 (♂, ♀).
Ecology: Cazier 1951b (distr. as *velasco*); Bellamy 1982; Westcott 1991 (biol.).
Distribution: **USA**: AZ, CA, TX; also recorded from Mexico.

Host(s): larvae in *Ebenopsis ebano* (Berl.) Barneby & Grimes and *Salix* sp.; adults also on *Acacia greggii* Gray, *Baccharis sergiloides* Gray, *Cercidium floridum* Gray, *Larrea tridentata* (DC.) Cov., *Prosopis glandulosa* Torr., *P. pubescens* Benth., *Psorothamnus spinosus* (Gray) Barneby and *Tamarix gallica* L.

subgenus *Polycesta* (*Nelsonella*) Cobos 1981

Polycesta (*Nelsonella*) Cobos 1981:64.

Type species: *Polycesta flavomaculata* Nelson 1960 (fixed by monotypy).
Key(s): Cobos 1981:62 (subgenera).
Taxonomy: Cobos 1981; Bílý & Bellamy 1996; Nelson 1997b.

flavomaculata Nelson 1960:30, figs. 1–3 (adult ♂ & genitalia).

Type locality: CA, Riverside Co., 2.5 mi N Pinyon Flat – Type depository: CASC 8118 (♂).
Taxonomy: Nelson 1960a; Cobos 1981.
Redescriiption: Cobos 1981: fig. 106 (♂ genitalia); Ohmomo & Akiyama 1997: fig. 14; 2000: fig. 147 (♂, ♀).
Ecology: Walters 1975 (biol.).
Distribution: **USA**: CA
Host(s): larvae in *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.).

subgenus *Polycesta* (*Tularensia*) Nelson 1997

Polycesta (*Tularensia*) Nelson 1997b:318.

Type species: *Polycesta tularensis* Chamberlin 1938 (fixed by original designation).
Key(s): Cobos 1981:62 (subgenera).
Taxonomy: Cobos 1981; Nelson 1997b.

bernardensis Obenberger 1924 [syn. of *californica*]

californica LeConte 1857:45.

Type locality: CA, Sacramento – Type depository: MCZC 2715 (♀).

synonym: *cribrana* Motschulsky 1859:182 – Synonymy: Chamberlin 1933:42.
Type locality: "dans nord du Mexique et prob. Midi de Calif." – Type depository: ZMUM.

synonym: *bernardensis* Obenberger 1924:35 (as subspecies) – Synonymy: Chamberlin 1933:42.
Type locality: CA, San Bernardino – Type depository: NMPC 19655.
Taxonomy: Barr 1949; Cobos 1981.
Redescription: Good 1925: plate 10 (wing); Barr 1949:24 (♂, ♀), fig. 8 (♂ genitalia); 1971: plate 8 (adult); Akiyama & Ohmomo 2000: fig. 145 (♂, ♀).
Ecology: Barr 1949; MacRae 2006 (biol., distr.); Beer 1949; Walters 1975; Nelson, *et al.* 1981 (biol.).
Distribution: **USA**: CA, OR
Host(s): larvae in *Acacia greggii* Gray, *Acer macrophyllum* Pursh, *Alnus rhombifolia* Nutt., *Arbutus menziésii* Pursh, *Cercocarpus betuloides* T. & G., *Heteromelas arbutifolia* (Lindl.) Romer, Malus *sylvestris* Mill., *Platanus racemosa* Nutt., *Populus fremontii* S. Wats., *Quercus agrifolia Neé*, *Q. berberidifolia* (misapplied to *Q. dumosa* Nutt.), *Q. chrysolepis* Liebm., *Q. douglasii* H. & A., *Q. garryana* Hook, *Q. kelloggii* Newb., *Q. lobata* Nee, *Q. wislizeni* A. DC. and Salix sp.; adults also on *Adenostoma fasciculatum* H. & A., Calocedrus decurrens (Torr.) Florin, *Ceanothus cuneatus* (Hook.) Nutt., *C. oliganthus* Nutt. ex T. & G., *Eriodictyon* sp. and *Fremontodendron californicum* (Torr.) Cov.

cavata LeConte 1858 [syn. of *elata*]

cazieri Barr 1949:36 (♂, ♀), fig. 10 (♂ genitalia).

Type locality: CA, Santa Barbara Co., Sunset Valley – Type depository: CASC 5933 (♂).
Taxonomy: Barr 1949; Cobos 1981.
Ecology: Barr 1949 (biol., distr.); Nelson 1959; MacRae & Nelson 2003 (biol.).
Distribution: **USA**: CA
Host(s): larvae in *Adenostoma fasciculatum* H. & A.; adults also on *Arctostaphylos* sp., *Ceanothus crassifolius* Torr., *C. greggii* Gray var. *perplexans* (Trel.) Jeps., *Cercocarpus betuloides* T. & G. and *Chaenactis artemisiifolia* (Gray) Gray.

cribrana Motschulsky 1859 [syn. of *californica*]

crypta Barr 1949:52 (♂, ♀), fig. 6 (♂ genitalia).
Type locality: CA, Riverside Co., San Jacinto Mtns., Idyllwild – Type depository: CASC 5931 (♂).
Taxonomy: Barr 1949; Cobos 1981.
Ecology: Barr 1949 (distr.); Nelson 1959 (biol.).
Distribution: **USA**: CA
Host(s): larvae in *Arctostaphylos* sp.; adults also on *Adenostoma fasciculatum* H. & A. and *Ceanothus oliganthus* Nutt.
cyanea Chamberlin 1933:41 (justified emendation).
Type locality: CA, Sequoia Natl. Park – Type depository: CASC 5472 (♂).
synonym: *cyaneous* Chamberlin 1933:41 (in part, original spelling emended by Barr 1949).
Taxonomy: Barr 1949; Cobos 1981.
Redescription: Barr 1949:39 (♂, ♀), fig. 11 (♂ genitalia).
Ecology: Barr 1949 (biol., distr.); Nelson, *et al*. 1981 (distr.).
Distribution: **USA**: CA
Host(s): larvae in *Ceanothus crassifolius* Torr.
cyaneous Chamberlin 1933 [syn. of *tularensis*]
elata LeConte 1858:68.
Type locality: TX – Type depository: MCZC 2717 (♀).
synonym: *cavata* LeConte 1858:68 – Synonymy: Crotch 1873:89.
Type locality: AL – Type depository: MCZC 2716 (♂).
Taxonomy: Barr 1949; Cobos 1981.
Redescription: Barr 1949:22 (♂, ♀), fig. 7 (♂ genitalia).
Ecology: Knull 1937a; Barr 1949 (biol., distr.); Nelson, *et al*. 1981; MacRae & Nelson 2003 (biol.); Wellso & Jackman 2006 (distr.).
Distribution: **USA**: AL, AR, IL, LA, MO, OK, TX
Host(s): larvae in *Fraxinus greggii* Gray, *Platanus occidentalis* L. and *Quercus texana* Buckl.
hageni Barr 1949:30 (♂, ♀), figs. 9, 12 (♂ genitalia, antenna).
Type locality: CA, Kern Co., Kernville – Type depository: CASC 5930 (♂).
Taxonomy: Barr 1949; Cobos 1981.
Ecology: Barr 1949 (biol., distr.); Nelson 1967a (biol.).
Distribution: **USA**: CA
Host(s): larvae in *Chrysothamnus nauseosus* (Pall.) Britt.
tularensis Chamberlin 1938b:445 (♂, ♀).
Type locality: CA, Tulare Co., Springville – Type depository: CASC 5470 (♂).
synonym: *cyaneous* Chamberlin 1933:41 (in part, original spelling emended by Barr 1949).
Taxonomy: Barr 1949; Cobos 1981.
Redescription: Barr 1949:34 (♂, ♀), fig. 5 (♂ genitalia).
Ecology: Barr 1949 (biol., distr.); Nelson 1959; 1987a (biol.).
Distribution: **USA**: CA
Host(s): larvae in *Fremontodendron californicum* (Torr.) Cov. and *Quercus douglasii* H. & A.; adults also on *Salix* sp.

Tribe Tyndarini Cobos 1955

Tyndarini Cobos 1955:11.
Type genus: *Tyndaris* Thomson 1857.
Acmaeoderites Kerremans 1893 (part).
Ptosimites Kerremans 1902 (part).
Acmaeoderinae Arnett 1962 (part).
Classification: Cobos 1955; 1980; Nelson 1982; Bellamy 1985; Hołyński 1993; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Key(s): Cobos 1980:33; Bellamy & Nelson 2002:102 (genera).

Genus *Paratyndaris* Fisher 1919

Paratyndaris Fisher 1919:92.
Type species: *Tyndaris olneyae* Skinner 1903 (fixed by original designation).
misidentification: *Tyndaris* of authors (in part), not *Tyndaris* Thomson 1857.

misidentification: *Ancylotela* of authors (in part), not *Ancylotela* Waterhouse 1882.
Immature stages: Burke 1917a (larva).
Taxonomy: Skinner 1903 (review: USA spp., as *Tyndaris*); Fisher 1919; Fall 1934; Knull 1937c (review: USA spp., as *Paratyndaris*); Cobos 1955; Barr 1972 (review: No. Amer. spp., as *Ancylotela*); Cobos 1980; Westcott 1998; Volkovitsh & Hawkswood 1999; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a; Nelson & Bellamy 2004 (revision).
Redescription: Cobos 1980 (as subgenus of *Tyndaris*); Nelson & Bellamy 2004:10.
Ecology: Skinner 1903 (as *Tyndaris*); Burke 1918; Knull 1937c; Barr 1941; Van Dyke 1945 (distr.); Parker 1947; Vogt 1949 (biol.); Barr 1972; Westcott 1998; Nelson & Bellamy 2004 (biol., distr.).
Key(s): Skinner 1903:238 (as *Tyndaris*); Kerremans 1907:557 (as *Tyndaris*); Knull 1937c:252 (USA sp.); Barr 1972:106 (as *Ancylotela*); Cobos 1980:40 (as *Tyndaris*) (subgenera); Nelson & Bellamy 2004:11 (subgenera & species).

subgenus *Paratyndaris* (*Knulliella*) Cobos 1980

Paratyndaris (*Knulliella*) Cobos 1980:41.
Type species: *Paratyndaris suturalis* Fall 1934 (fixed by monotypy).
Taxonomy: Bellamy & Nelson 2002; Nelson & Bellamy 2004.
Key(s): Nelson & Bellamy 2004:11.

chamaeleonis (Skinner) 1903:237 (♀), plate 10, fig. 1 (adult) (*Tyndaris*).
Type locality: TX, Brownsville, Esperanza Ranch – Type depository: USNM 42657 (♀).
Taxonomy: Skinner 1903; Kerremans 1907 (both as *Tyndaris*); Fisher 1919; Barr 1972 (as *Ancylotela*); Nelson & Bellamy 2004.
Redescription: Akiyama & Ohmomo 2000: plate 10, fig. 101 (adult); Akiyama & Ohmomo 2000: fig. 101 (♂); Nelson & Bellamy 2004:21, figs. 16, 30 (adult).
Ecology: Knull 1937c; Vogt 1949; Nelson 1987 (biol. as *Tyndaris*); Westcott, *et al*. 1989 (distr.); Nelson & Bellamy 2004; MacRae 2006 (biol., distr.).
Distribution: **USA**: TX; also recorded from Mexico.
Host(s): larvae in *Acacia greggii* Gray var. *wrightii* (Benth.) Isley, *Diospyros texana* Scheele, *Ebenopsis ebano* (Berl.) Barneby & Grimes and *Parkinsonia aculeata* L.; adults also on *Celtis ehrenbergiana* (Klot.) Liebm., *Leucophyllum frutescens* (Berl.) I. ♂ Johnst., *Lippia alba* (Mill.) N.E. Br. ex Britt. & P. Wilson, *Lycium berlandieri* Dunal, *Prosopis glandulosa* Torr. and *Sorghum* sp.

suturalis Fall 1934:193 (♀).
Type locality: FL, Big Pine Key – Type depository: MCZC 24432 (♀).
Taxonomy: Fall 1934; Barr 1972 (as *Ancylotela*); Cobos 1980 (as *Tyndaris*).
Redescription: Cobos 1980: fig. 15 (antenna); Bílý 1987: fig. 3 (aedeagus); Akiyama & Ohmomo 2000: plate 10, fig. 108 (adult); Akiyama & Ohmomo 2000: fig. 108 (♀); Nelson & Bellamy 2004:15 (♂, ♀), figs. 1 (elytra apex), 4 (tarsus), 7 (antenna), 16 (adult).
Ecology: Cazier 1951a (distr.); Nelson, *et al*. 1981 (as *Tyndaris*); Nelson & Bellamy 2004 (distr., biol.).
Distribution: **USA**: FL; also recorded from the West Indies.
Host(s): larvae in *Rhizophora mangle* L.; adults also on *Conocarpus erectus* L. and *Laguncularia racemosa* (L.) Gaertn. f.

subgenus *Paratyndaris* (*Paratyndaris*) Fisher 1919

Paratyndaris (*Paratyndaris*) Fisher 1919:92.
Type species: *Tyndaris olneyae* Skinner 1903.
Taxonomy: Bellamy & Nelson 2002; Nelson & Bellamy 2004.
Key(s): Nelson & Bellamy 2004:11.

acaciae Knull 1937c:254 (♂, ♀), fig. 3 (adult).
Type locality: TX, Davis Mtns. – Type depository: FMNH (♂).
Taxonomy: Knull 1937c; Barr 1972 (as *Ancylotela*); Cobos 1980 (as *Tyndaris*); Nelson & Bellamy 2004.
Redescription: Akiyama & Ohmomo 2000, plate 10, fig. 102 (adult); Nelson & Bellamy 2004:25 (♂, ♀), figs. 22 (map), 33 (adult), 71 (photo).
Ecology: Knull 1937c; Blackwelder 1939 (distr.); Nelson & Bellamy 2004; Davidson & Davidson 2005 (biol., distr.).

Distribution: **USA**: NM, TX; also recorded from Mexico.

Host(s): adults on *Acacia constricta* Benth., *A. greggii* Gray, *Celtis ehrenbergia* (Klot.) Liebm., *C. laevigata* Willd., *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby, *Prosopis glandulosa* Torr., *Quercus emoryi* Torr. and *Viguiera stenoloba* Blake.

albofasciata Knull 1937c:273 (♀), plate 1, fig. 1 (adult).

Type locality: AZ, Tucson – Type depository: FMNH (♀).

Taxonomy: Barr 1972 (as *Ancylotela*); Cobos 1980 (as *Tyndaris*); Nelson & Bellamy 2004.

Redescription: Nelson & Bellamy 2004:67, figs.19 (map), 57 (adult).

Ecology: Knull 1937c; Barr 1941b; Van Dyke 1945 (distr.); Nelson & Bellamy 2004 (biol., distr.).

Distribution: **USA**: AZ, CA; also recorded from Mexico.

Host(s): adults on *Acacia constricta* Benth., *A. greggii* Gray, *Celtis* sp., *Cercidium floridum* Gray, *C. microphyllum* (Torr.) Rose & Johnston, *Lysiloma candidum* Brandegee and *Olneya tesota* Gray.

anomalis Knull 1937c:272 (♂, ♀), plate 1, fig. 2 (adult).

Type locality: NV, Las Vegas – Type depository: FMNH (♂).

Taxonomy: Knull 1937c; Barr 1972 (as *Ancylotela*); Cobos 1980 (as *Tyndaris*); Nelson & Bellamy 2004.

Redescription: Helfer 1970:91, fig. (adult); Nelson & Bellamy 2004:22, figs. 17 (map), 31 (adult).

Ecology: Knull 1937c; Blackwelder 1939 (distr.); Barr 1941b; Nelson & Bellamy 2004 (biol., distr.).

Distribution: **USA**: AZ, CA, NV.

Host(s): larvae in *Prosopis glandulosa* Torr. var. *torreyana* (L. Benson) Johnston.

cincta (Horn) 1885:147 (*Tyndaris*).

Type locality: TX – Type depository: MCZC 33815 (♂).

Taxonomy: Horn 1885; Skinner 1903; Kerremans 1907 (as *Tyndaris*); Fisher 1919; Barr 1972 (as *Ancylotela*); Nelson & Bellamy 2004.

Redescription: Skinner 1903: plate 10, fig. 5 (adult); Nelson & Bellamy 2004:56 (♂, ♀), figs. 23 (map), 48, 49 (Adult).

Ecology: Horn 1885 (distr. as *Tyndaris*); Nelson & Bellamy 2004 (biol., distr.).

Distribution: **USA**: TX; also recorded from Mexico.

Host(s): larvae in *Ebenopsis ebano* (Berl.) Barneby & Grimes; adults also on *Prosopis glandulosa* Torr.

coursetiae Fisher 1919:93 (♂).

Type locality: AZ, Santa Catalina Mtns., Tucker Cyn. – Type depository: USNM 22097 (♂).

Taxonomy: Fisher 1919; Cobos 1955 (as *Ancylotela*); 1980 (as *Tyndaris*); Nelson & Bellamy 2004.

Redescription: Knull 1937c: plate 1, fig. 4 (adult); Cobos 1955: figs. 6 (antenna), 12 (wing), 16 (tegmen), 17 (♂ genitalia); Akiyama & Ohmomo 2000: plate 10, fig. 103 (adult); Nelson & Bellamy 2004:30 (♂, ♀) figs. 19 (map), 36 (adult).

Ecology: Fisher 1919; Knull 1937c; Parker 1947 (biol.); Walters & Bellamy 1982; Nelson & Bellamy 2004 (biol., distr.).

Distribution: **USA**: AZ; also recorded from Mexico..

Host(s): larvae in *Cercidium floridum* Gray, *Coursetia glandulosa* Gray; adults also on *Acacia greggii* Gray, *Celtis ehrenbergia* (Klot.) Liebm., *Condalia* sp., *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby and *Olneya tesota* Gray.

crandalli Knull 1941c:694 (♀) (as subspecies of *olneyae*).

Type locality: TX, Laredo – Type depository: FMNH (♀).

Taxonomy: Knull 1941c; 1950; Barr 1972 (as *Ancylotela*); Nelson & Bellamy 2004.

Redescription: Nelson & Bellamy 2004:51 (♂, ♀), figs. 21 (map), 44 (adult).

Ecology: Knull 1950; Nelson & Bellamy 2004 (biol., distr.).

Distribution: **USA**: TX

Host(s): adults on *Eysenhardtia texana* Scheele and *Prosopis glandulosa* Torr.

grassmani Parker 1947:31 (♂, ♀).

Type locality: AZ, Maricopa Co., Cave Cr. – Type depository: CASC 8119 (♂).

Taxonomy: Parker 1947; Nelson & Bellamy 2004.

Redescription: Nelson & Bellamy 2004:58 (♂, ♀), figs. 9 (antenna), 22 (map), 50 (adult).

Ecology: Parker 1947; Nelson 1987 (biol.); Nelson & Bellamy 2004 (biol., distr.).

Distribution: **USA**: AZ; also recorded from Mexico..

Host(s): larvae in *Olneya tesota* Gray; adults also on *Celtis ehrenbergia* (Klot.) Liebm., *Cercidium floridum* Gray and *Ziziphus obtusifolia* (T. & G.) Gray.

olneyae (Skinner) 1903:236 (*Tyndaris*), fig. 4 (adult).
Type locality: AZ, Florence – Type depository: USNM 6956 (♂).
Immature stages: Burke 1917: plate 7, fig. 4 (larva).
Taxonomy: Skinner 1903; Kerremans 1907 (as *Tyndaris*); Fisher 1919; Barr 1972 (as *Ancylotela*); Cobos 1980 (as *Tyndaris*); Nelson & Bellamy 2004.
Redescription: Nelson 1981: fig. 13 (elytra apex); Akiyama & Ohmomo 2000: plate 10, fig. 100 (adult); Nelson & Bellamy 2004:45 (♂, ♀), figs. 2 (elytra apex), 5 (tarsus), 8 (antenna), 18 (map), 44 (adult), 74 (photo).
Ecology: Skinner 1903; Burke 1917a; 1918a; Knull 1937c; Barr 1941b; Van Dyke 1945; Nelson 1962 (biol. as *Ancylotela*); Nelson, *et al*. 1981 (distr.); Nelson & Bellamy 2004 (biol., distr.).
Distribution: **USA**: AZ, CA, NM, NV, UT; also recorded from Mexico.
Host(s): larvae in *Acacia greggii* Gray, *Cercidium floridum* Gray, *Olneya tesota* Gray and *Prosopis glandulosa* Torr.; adults also on *Acacia constricta* Benth., *Atriplex* sp., *Celtis ehrenbergia* (Klot.) Liebm., *Cercidium microphyllum* (Torr.), *Condalia* sp., *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby, *Pluchea sericea* (Nutt.) Cov., *Prosopis pubescens* Benth. and *Ziziphus* sp.

prosopis (Skinner) 1903:237 (*Tyndaris*) (♀), plate 10, fig. 6 (adult).
Type locality: TX, Austin – Type depository: USNM 6957 (♀).
Taxonomy: Skinner 1903; Kerremans 1907(both as *Tyndaris*); Barr 1972 (as *Ancylotela*); Nelson & Bellamy 2004.
Redescription: Nelson & Bellamy 2004:55 (♂, ♀), figs. 20 (map), 47 (adult).
Ecology: Skinner 1903 (as *Tyndaris*); Knull 1937c; Nelson & Westcott 1976; Nelson 1987 (as *Tyndaris*); Nelson & Bellamy 2004 (biol., distr.).
Distribution: **USA**: AZ, OK, MS, TX
Host(s): larvae in *Prosopis glandulosa* Torr. and *Quercus pungens* Liebm. var. *vaseyana* (Buckl.) C.H. Muller.; adults also on *Quercus marilandica* (L.) Muenchh. and *Q. stellata* Wangenh.

quadrinotata Knull 1938b:22 (♂, ♀).
Type locality: AZ, Tucson – Type depository: FMNH (♂).
Taxonomy: Knull 1938b; Barr 1972 (as *Ancylotela*); Nelson & Bellamy 2004.
Redescription: Nelson & Bellamy 2004:36 (♂, ♀), figs. 19 (map), 40 (adult).
Ecology: Nelson 1987; Nelson & Bellamy 2004 (biol., distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): adults on *Acacia constricta* Benth., *A.greggii* Gray, *A. willardiana* Rose, *Olneya tesota* Gray, *Prosopis glandulosa* Torr. and *Quercus oblongifolia* Torr.

tucsoni Knull 1938b:21(♂, ♀).
Type locality: AZ, Tucson – Type depository: FMNH (♂).
Taxonomy: Barr 1972 (as *Ancylotela*); Cobos 1980 (as *Tyndaris*); Nelson & Bellamy 2004.
Redescription: Nelson & Bellamy 2004:24 (♂, ♀), figs. 17 (map), 32 (adult).
Ecology: Parker 1947; Nelson 1965 (as *Ancylotela*); Nelson, *et al*. 1981 (biol. as *Tyndaris*); Walters & Bellamy 1990 (as *Tyndaris*); Nelson & Bellamy 2004 (biol., distr.).
Distribution: **USA**: AZ, CA, NM; also recorded from Mexico.
Host(s): adults on *Acacia constricta* Benth., *A. greggii* Gray, *Cercidium floridum* Gray, *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby, *Olneya tesota* Gray and *Prosopis glandulosa* Torr.

subgenus *Paratyndaris* (*Waltersia*) Nelson & Bellamy 2004
Paratyndaris (*Waltersia*) Nelson & Bellamy 2004:68, figs. 3 (elytra apex), 6 (tarsus), 10 (antenna).
Type species: *Tyndaris barberi* Skinner 1903 (fixed by original designation).

barberi (Skinner) 1903:238 (*Tyndaris*), plate 10, fig. 3 (adult).
Type locality: AZ, Florence – Type depository: ANSP 8167 (♀) (Lectotype designation: Barr 1972:101).
Taxonomy: Fisher 1919; Barr 1972 (as *Ancylotela*); Nelson & Bellamy 2004.
Redescription: Barr 1972:100, fig. 1 (adult as *Ancylotela*); Cobos 1980: fig. 13 (antenna); Akiyama & Ohmomo 2000: plate 10, fig. 106 (adult) (both as *Tyndaris*); Nelson & Bellamy 2004:68 (♂, ♀), figs. 3 (elytra apex), 6 (tarsus), 10 (antenna), 24 (map), 58 (adult).
Ecology: Knull 1937c; Nelson 1962 (as *Ancylotela*); Walters & Bellamy 1990 (distr., as *Tyndaris*);

Nelson & Bellamy 2004 (biol., distr.); Westcott 2005 (distr.).
Distribution: **USA**: AZ, CA
Host(s): adults on *Acacia greggii* Gray, *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby, *Olneya tesota* Gray, *Prosopis glandulosa* Torr. and *Quercus turbinella* Greene.

knulli (Barr) 1972:102 (*Ancylotela*) (♂, ♀), fig. 2 (holotype).
Type locality: CA, San Diego Co., Jacumba – Type depository: CASC 11508 (♀).
Taxonomy: Barr 1972 (as *Ancylotela*); Cobos 1980 (as *Tyndaris*); Nelson & Bellamy 2004.
Redescription: Akiyama & Ohmomo 2000: plate 10, fig. 107 (adult); Nelson & Bellamy 2004:70 (♂, ♀), figs. 24 (map), 59 (adult), 72 (photo).
Ecology: Barr 1972; Nelson & Bellamy 2004 (biol., distr.).
Distribution: **USA**: AZ, CA, NV; also recorded from Mexico.
Host(s): larvae in *Prosopis glandulosa* Torr. var. *torreyana* (L. Benson) Johnston; adults also on *Acacia greggii* Gray, *Cercidium floridum* Gray, *Gutierrezia* sp., *Olneya tesota* Gray and *Prosopis pubescens* Benth.

Subfamily Chrysochroinae Laporte 1835
"Chrysochroites, Chrysochroidae" Laporte 1835:158.
Type genus: *Chrysochroa* Dejean 1833.
Scutellatae (Section 1, Subdivision 3) Schönherr 1817 (part).
Chrysochroites Laporte & Gory 1837 (part).
Chalcophorides Lacordaire 1857.
Chalcophorae LeConte 1861 (part).
Chalcophorini Kerremans 1893 (part).
Catoxanthina Jackson 1911.
Buprestini Arnett 1962 (part).
Chalcophoritae Cobos 1975b.
Classification: Leconte & Horn 1883; Kerremans 1893; 1903; 1908; Cobos 1955; 1975b; Arnett 1962; Nelson 1982; Bellamy 1985; Bílý 1999a; Kolibác 2001; Volkovitsh 2001; Bellamy 2002b; 2003a.
Key(s): Kerremans 1893:104; 1903:56; 1908:242; Arnett 1962:484 (genera); Cobos 1975b:39; Nelson 1982:432 (tribes).

Tribe Chrysochroini Laporte 1835
Chrysochroini Laporte 1835:158.
Type genus: *Chrysochroa* Dejean 1833.
Scutellatae (Section 1, Subdivision 3) Schönherr 1817 (part).
Chalcophorides Lacordaire 1857.
Type genus: C*halcophora* Eschscholtz 1829.
Chalcophorae LeConte 1861 (part).
Chrysochroini Kerremans 1903 (part).
Buprestini Arnett 1962 (part).
Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1903; 1908; Cobos 1957b; Arnett 1962; Nelson 1982; Bellamy 1985; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.
Key(s): Kerremans 1893:104; 1903:56; 1908:242; Arnett 1962:484; Bellamy & Nelson 2002:104 (genera).

***Nanularia* generic group (Tribal level) sensu Volkovitsh 2001**
Nanularia generic group Volkovitsh 2001:54.
Classification: Bellamy 2003a; Bílý & Volkovitsh 2003.

Genus *Ampheremus* Fall 1917
Ampheremus Fall 1917:68.
Type species: *Ampheremus cylindricollis* Fall 1917 (fixed by monotypy).
Taxonomy: Nelson & Barr 1960; Barr 1970; Bellamy 1987b; Nelson & Bellamy 1996; Bílý & Volkovitsh 1996; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Redescription: Barr 1970:3; Bellamy 1987b:16.
Ecology: Bellamy 1987b.

cylindricollis Fall 1917:69.
Type locality: CA, Palm Springs – Type depository: MCZC 24434 (♂).
synonym: *inyoensis* (Van Dyke) 1942:112 (♂, ♀) (*Hippomelas*) – Synonymy: Nelson & Barr 1960:178.
Type locality: CA, Inyo Co., near Lone Pine – Type depository: CASC 4841 (♀).
Taxonomy: Fall 1917; Nelson & Barr 1960; Bellamy 1987b.
Redescription: Helfer 1970; fig. (adult as *inyoensis*); Bellamy 1987b:17 (♂, ♀), figs. 3, 6, 9, 12, 14, 25, 27, 33, 38, 39 (wing, parts, ♂ & ♀ genitalia, habitus, map, feeding); Akiyama & Ohmomo 20000: fig. 538 (♂, ♀).
Ecology: Knull 1970; Nelson, *et al.* 1981 (distr.).
Distribution: **USA**: AZ, CA, NM, NV, UT
Host(s): adults on *Eriogonum inflatum* Torr. & Frem.

Genus *Nanularia* Casey 1909
Nanularia Casey 1909:172.
Type species: *Nanularia cupreofusca* Casey 1909 (fixed by original designation).
Immature stages: Nelson & Bellamy 1996 (larva).
Taxonomy: Barr 1970; Bellamy 1987b (revision); Nelson & Bellamy 1996; Bílý & Volkovitsh 1996, Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Redescription: Barr 1970:2; Bellamy 1987b:3; Nelson & Bellamy 1996:905, figs. 1, 2, 4, 7 (parts), 66–68 (wings), 83 (♂ genitalia), 96 (ovipositor), 100, 101 (larva), 107 (feeding); Bílý & Volkovitsh 1996, figs. 48, 49 (antenna).
Ecology: Bellamy 1987b; Nelson & Bellamy 1996.
Key(s): Bellamy 1987b:5.

alpina Bellamy 1987b:11 (♂, ♀), figs. 22 (♂ genitalia), 34 (adult), 37 (distr. map).
Type locality: CA, Los Angeles Co., San Gabriel Mtns., Throop Peak Trail near Dawson Saddle, 8100' – Type depository: LACM (♂).
Taxonomy: Bellamy 1987b.
Redescription: Akiyama & Ohmomo 2000: fig. 537 (♂, ♀).
Ecology: Bellamy 1987b (biol., distr.).
Distribution: **USA**: CA
Host(s): adults on *Eriogonum kennedyi* S. Wats var. *alpigenum* (M. & J.) M. & J.
brunneata (Knull) 1947c:210 (*Hippomelas*).
Type locality: CA, Palm Springs – Type depository: FMNH (♀).
Taxonomy: Bellamy 1987b.
Redescription: Bellamy 1987b:10 (♂, ♀), figs. 2, 21, 30, 37 (wing, ♂ genitalia, habitus, map); Nelson & Bellamy 1996: fig. 101 (larva); Bílý & Volkovitsh 1996, figs. 48, 49 (antenna); Akiyama & Ohmomo 2000: fig. 536 (♂, ♀).
Ecology: Nelson 1960b; Barr 1971; Nelson & Westcott 1976 (biol.); Nelson, *et al.* 1981 (distr.); Bellamy 1987b (biol., distr.)
Distribution: **USA**: AZ, CA, ID, NV, UT
Host(s): larvae in *Eriogonum elongatum* Benth., *E. inflatum* Torr. & Frem. and *E. microthecum* Nutt.; adults also on *E. baileyi* S. Wats., *E. fasciculatum* (Benth.) T. & G. and *E. nummulare* ME. Jones.
californica (Horn) 1875:147 (*Gyascutus*).
Type locality: CA, San Joaquin Valley – Type depository: MCZC 8302 (♂) (Lectotype designation: Bellamy 1987b:7).
misidentification: *cylindricollis* Helfer 1970:102, not *cylindricollis* Fall 1917.
Taxonomy: Bellamy 1987b.
Redescription: Bellamy 1987b:7 (♂, ♀), figs. 13, 17 19, 26, 28, 36 (habitus, ♂ & ♀ genitalia, distr. map).
Ecology: Bellamy 1987b (biol., distr.).
Distribution: **USA**: CA
Host(s): larvae in *Eriogonum nudum* Benth.; adults also on *E. fasciculatum* (Benth.) T. & G. and *E. latifolium* Smith.
cupreofusca Casey 1909:173.
Type locality: CA, San Diego Co., Poway – Type depository: USNM 35857 (♀) (Lectotype designation:

Bellamy 1987b:10).
Taxonomy: Bellamy 1987b.
Redescription: Bellamy 1987b:8 (♂, ♀), figs. 16, 20, 29, 37 (habitus, ♂ genitalia, distr. map); Nelson & Bellamy 1996: fig. 83 (♂ genitalia).
Ecology: Bellamy 1987b (biol., distr.).
Distribution: **USA**: CA; also recorded from Mexico.
Host(s): larvae in *Eriogonum nudum* Benth.; adults also on *E. fasciculatum* (Benth.) and *E. latifolium* Smith.

monoensis Bellamy 1987b:13 (♂, ♀), figs. 24, 35, 36, 40 (♂ genitalia, habitus, distr. map, feeding).
Type locality: CA, Mono Co., 6.5–7.0 mi NW Benton Hot Springs, 2000 m. – Type depository: LACM (♂).
Immature stages: Nelson & Bellamy 1996: fig. 100 (larva).
Taxonomy: Bellamy 1987b.
Ecology: Bellamy 1987b (biol., distr.).
Distribution: **USA**: CA
Host(s): larvae in *Eriogonum nummulare* ME. Jones.

obríenorum Knull 1971:242, figs. 1, 2 (♂ genitalia).
Type locality: CA, Kern Co., McKittrick – Type depository: FMNH (♂).
Taxonomy: Bellamy 1987b.
Redescription: Bellamy 1987b:12 (♂, ♀), figs. 5, 8, 11, 15, 18, 23, 31, 36 (habitus, parts, ♂ genitalia, distr. map); Nelson & Bellamy 1996: fig. 96 (ovipositor).
Ecology: Nelson, *et al*. 1981; Bellamy 1987b (biol., distr.).
Distribution: **USA**: CA
Host(s): adults on *Atriplex polycarpa* (Torr.) S. Wats., *Eriogonum fasciculatum* (Benth.) T. & G. and *E. nudum* Benth. var. *indictum* (Jeps.) Reveal.

pygmaea (Knull) 1941d:386 (*Hippomelas*), plate 1, fig. 6 (adult ♀).
Type locality: TX, Val Verde Co. – Type depository: FMNH (♀).
Taxonomy: Nelson 1980a; Bellamy 1987b.
Redescription: Bellamy 1987b:16, fig. 32 (habitus).
Ecology: Bellamy 1987b (biol., distr.).
Distribution: **USA**: TX
Host(s): unknown.

Texania generic group (Tribal level) sensu Volkovitsh 2001

Texania generic group Volkovitsh 2001:55.
Classification: Bellamy 2003a; Bílý & Volkovitsh 2003.

Genus *Texania* Casey 1909

Texania Casey 1909:84.
Type species: *Buprestis campestris* Say 1823 (fixed by original designation).
misspelling: *Chalcophana* Chevrolat 1853:308 (*lapsus calami*).
misidentification: *Chalcophorella* of authors (in part), not *Chalcophorella* Kerremans 1903
misspelling: *Texiana* Kerremans 1909:60 (*lapsus calami*).
Immature stages: Burke 1917a: plate 1, fig. 2 (larva as *Chalcophorella*).
Taxonomy: Casey 1909; Kerremans 1909 (as *Chalcophorella*, part); Casey 1914; Obenberger 1942a; Nelson 1982; Bellamy & Nelson 1990; 2002; Hołyński 1993; Volkovitsh 2001; Bellamy 2003a.
Redescription: Obenberger 1942a.
Ecology: Burke 1917a (biol. as *Chalcophorella*).
Key(s): Casey 1909:85; Knull 1956:48.

campestris (Say) 1823:165 (*Buprestis*).
Type locality: AR – Type depository: type destroyed.
synonym: *substrigosa* (Laporte & Gory) 1836:13 (*Buprestis*) – Synonymy: LeConte 1857a:7.
Type locality: "Amer. Bor." – Type depository: MNHN (♂).
synonym: *serriger* Casey 1909:85 – Synonymy: Leng 1920:179.
Type locality: PA – Type depository: USNM 35743 (♂)

Immature stages: Burke 1917a: plate 1, fig. 2 (larva); Knull 1925: plate 8, fig. 3 (larva).
Taxonomy: Casey 1909; Kerremans 1909.
Redescription: Casey 1909:85 (♂, ♀); Kerremans 1909:74; Knull 1925: plate 3 (adult); Good 1925: plate 9 (wing); Ohmomo & Akiyama 1997: figs. 6–7; Akiyama & Ohmomo 2000: fig. 383 (♂, ♀).
Ecology: Drury 1902; Casey 1909; Knull 1920 (biol.); Nelson, *et al*. 1981; Bright 1987; Solomon 1995; (biol., distr.); Peck & Thomas 1998; MacRae 2006 (distr.).
Distribution: **Canada**: ON; **USA**: AL, AR, DC, FL, IL, IN, KY, LA, MD, MI, MO, NC, NJ, OH, OK, PA, TN, TX, WV
Host(s): larvae in *Acer* sp., *Fagus grandifolia* Ehrh., *Platanus occidentalis* L. and *Salix nigra* Marsh.; adults also on *Quercus* sp.

fulleri (Horn) 1875:147 (*Chalcophora*).
Type locality: TX – Type depository: MCZC 8303 (Lectotype not designated).
synonym: *bisinuata* Casey 1909:86 – Synonymy: Bellamy & Nelson 1990:296.
Type locality: TX – Type depository: USNM 35742 (♀) (Lectotype designation: Bellamy & Nelson 1990:296).
Taxonomy: Casey 1909; Kerremans 1909.
Redescription: Casey 1909:86; Kerremans 1909:71; Good 1925: plate 9 (wing); Ohmomo & Akiyama 1997: fig. 8; Akiyama & Ohmomo 2000: fig. 384 (♂).
Ecology: Casey 1909; Chamberlin 1926 (distr.); Nelson & MacRae 1990 (biol.).
Distribution: **USA**: TX
Host(s): larvae in *Celtis laevigata* Willd.

langeri (Chevrolat) 1853:308 (*Chalcophora*).
Type locality: LA, Greenville, near New Orleans – Type depository: BMNH (♀).
synonym: *obsolescens* Casey 1914:361 (*Chalcophorella*) – Synonymy: Knull 1956:48.
Type locality: LA – Type depository: USNM 35744 (♀).
synonym: *strandi* Obenberger 1936d:109 – Synonymy: Nelson 1980a:88.
Type locality: IA, Fort Madison – Type depository: NMPC 20102 (♀).
Taxonomy: Knull 1956; Nelson 1980a.
Ecology: Knull 1956 (distr.).
Distribution: **USA**: IA, LA, MO, TX, VA
Host(s): unknown.

Subtribe Chalcophorina Lacordaire 1857
Chalcophorides Lacordaire 1857:14.
Buprestina Jakobson 1913 (part).
Chalcophorellini Tôyama 1986 (part).
Chalcophora generic group Volkovitsh 2001:55.
Classification: Hołyński 1993; Bellamy & Nelson 2002; Bellamy 2003a ; Bílý & Volkovitsh 2003.
Key(s): Bellamy & Nelson 2002:104 (genera).

Genus *Chalcophora* Dejean 1833
Chalcophora Dejean 1833:77.
Type species: *Buprestis mariana* Linnaeus 1758 (fixed by subsequent designation: Desmarest 1860:39).
Immature stages: Burke 1917a: plate 1, fig. 1 (larva).
Taxonomy: Casey 1909; Kerremans 1909; Arnett 1960; Nelson 1982; Bright 1987; Hołyński 1993; Bellamy 1997d; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Redescription: Casey 1909:77; Bright 1987:41.
Ecology: Burke 1917a (biol.); Chamberlin 1926 (distr.).
Key(s): Casey 1909:78 (No. Amer.); Kerremans 1909:19 (world); Wellso, *et al*. 1976:6 (MI); Bright 1987:41 (Canada & Alaska); Downie & Arnett 1996:739 (NE No. Amer.).

angulicollis (LeConte) 1857b:44 (*Buprestis*).
Type locality: CA, Sacramento – Type depository: MCZC 2646.
synonym: *oregonensis* Fitch 1859:702 – Synonymy: LeConte 1860:190.
Type locality: OR, The Dalles on Columbia River – Type lost (NYSM?).

synonym: *montana* Casey 1909:80 (as subspecies of *angulicollis*) – Synonymy: Kerremans 1909:31.
Type locality: CO, Boulder Co. – Type depository: USNM 35735 (♀) (Lectotype designation: Bellamy & Nelson 1990:293).
synonym: *prominens* Casey 1909:81 – Synonymy: Leng 1920:179.
Type locality: FL (error?) – Type depository: USNM 35737 (♀).
synonym: *pallida* Kerremans 1919:48 – Synonymy: Barr 1971:57.
Type locality: BC – Type depository: BMNH.
Immature stages: Burke 1917a: plate 1, fig. 1 (larva).
Taxonomy: Casey 1909; 1914; Kerremans 1909; Barr 1971; Bright 1987:42 considered this a synonym of *virginiensis*
Redescription: Barr 1971: plate 6, fig. 2 (adult); Akiyama & Ohmomo 2000: fig. 357 (♂, ♀).
Ecology: Chamberlin 1917 (biol.); Nelson, *et al*. 1981 (distr.).
Distribution: **Canada**: BC; **USA**: AZ, CA, CO, ID, NE, NM, OR, SD, TX, WA, WY
Host(s): larvae in *Abies concolor* (Gord. & Glend.) Lindl., *A. grandis* Lindl., *Pinus ponderosa* Laws. and *Pseudotsuga menziesii* (Mirb.) Franco.

antennalis Casey 1914 [syn. of *virginiensis*]
borealis (Laporte & Gory 1836) [syn. of *liberta*]
brevicollis Casey 1909 [syn. of *virginiensis*]
cupreola Casey 1914 [syn. of *fortis*]
cupreomaculata (Goeze 1777) [syn. of *virginiensis*]
filigrana Obenberger 1913 [syn. of *virginiensis*]

fortis LeConte 1860:191.
Type locality: PA, NY – Type depository: MCZC 2646 (Lectotype not designated).
synonym: *laurentica* Casey 1909:82 – Synonymy: Leng 1920:179.
Type locality: ON – Type depository: USNM 35739 (♂) (Lectotype designation: Bellamy & Nelson 1990:293).
synonym: *cupreola* Casey 1914:360 – Synonymy: Leng 1920:179.
Type locality: KS – Type depository: USNM 35740.
Taxonomy: Casey 1909; Kerremans 1909.
Redescription: Casey 1909:82; Kerremans 1909: plate 23 (adult); Knull 1925: plate 3 (adult); Wellso, *et al*. 1976 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 363 (♀).
Ecology: Knull 1922 (biol.); Nelson, *et al*. 1981; Nelson 1987a; Bright 1987; Davies 1991 (distr.).
Distribution: **Canada**: MB, ON, PQ; **USA**: CT, IA, KS, MA, ME, MI, MN, NE, NH, NJ, NY, PA, VT, WI
Host(s): larvae in *Pinus strobus* L.

georgiana (LeConte) 1857:7 (*Buprestis*) (replacement name for *liberta* (Laporte & Gory 1836)).
Type locality: No. Amer. – Type depository: MCZC 2648 (Lectotype not designated).
synonym: *liberta* (Laporte & Gory) 1836:11 (*Buprestis*) (primary junior homonym; preoccupied: Germar 1824:38) – Synonymy: LeConte 1857a:7.
Type locality: No. Amer. – Type depository: MNHN (Lectotype not designated; the type series contains both sexes).
synonym: *iridescens* Casey 1909:81– Synonymy: Casey 1914:355.
Type locality: S Atlantic States – Type depository: USNM 35733 (♂).
Taxonomy: Casey 1909; Kerremans 1909: Casey 1914.
Redescription: Casey 1909:81; Akiyama & Ohmomo 2000: fig. 362 (♀).
Ecology: Casey 1909; Chamberlin 1926 (biol.); Nelson, *et al*. 1981 (distr.).
Distribution: **USA**: AL, FL, GA, LA, MS, NC, PA, VA
Host(s): larvae in *Pinus caribaea* Morelet, *P. echinata* Mill., *P. palustris* Mill. and *P. taeda* L.

ingens Casey 1914 [syn. of *virginiensis*]
iridescens Casey 1909 [syn. of *georgiana*]
lacustris LeConte 1860 [syn. of *virginiensis*]
laurentica Casey 1909 [syn. of *fortis*]

liberta (Germar) 1824:38 (*Buprestis*).
Type locality: "Amer. Bor." – Type depository: ZMHB.
synonym: *borealis* (Laporte & Gory) 1836:13 (*Buprestis*) – Synonymy: LeConte 1857a:7.
Type locality: "Amer. Sept." – Type depository: MNHN (♀).

synonym: *parviceps* Casey 1909:83 – Synonymy: Leng 1920:179.
Type locality: Northern NY – Type depository: USNM 35741 (♀).
Taxonomy: Casey 1909; Kerremans 1909.
Redescription: Casey 1909:82; Wellso, *et al*. 1976: fig. 4B (♂ genitalia); Bright 1987:45; Akiyama & Ohmomo 2000: fig. 364 (♀).
Ecology: Casey 1909; Bright 1987; Nelson & MacRae 1990 (distr.); Chamberlin 1926 (biol.).
Distribution: **Canada**: MB, ON, PQ; **USA**: AL, CT, IN, MA, ME, MI, MN, NH, NY, PA, TX, WI, WV
Host(s): larvae in *Pinus resinosa* Ait. and *P. strobus* L.

liberta (Laporte & Gory) 1836 [syn. of *georgiana*]
melanotum Muttkowski 1910 [syn. of *virginiensis*]
montana Casey 1909 [syn. of *angulicollis*]
novaeboracensis Fitch 1859 [syn. of *virginiensis*]
obliterata Casey 1909 [syn. of *virginiensis*]
oregonensis Fitch 1859 [syn. of *angulicollis*]
pallida Kerremans 1919 [syn. of *angulicollis*]
parviceps Casey 1909 [syn. of *liberta*]
prominens Casey 1909 [syn. of *angulicollis*]
virginica (Gmelin 1790) [syn. of *virginiensis*]

virginiensis (Drury) 1770:60, plate 30, fig. 3 (adult) (*Buprestis*).
Type locality: VA – Type depository: unknown (BMNH?).
synonym: *cupreomaculata* (Goeze) 1777:596 (*Buprestis*) (name evidently based on illustration in Drury 1770: plate 30, fig. 3) – Synonymy: Saunders 1871:12.
synonym: *virginica* (Gmelin) 1790:1940 (*Buprestis*).(name evidently based on description and illustration in Drury 1770:66, plate 30, fig. 3) – Synonymy: LeConte 1860:191.
Type locality: VA – Type depository: unknown.
synonym: *novaeboracensis* Fitch 1859:701 – Synonymy: LeConte 1860:191.
Type locality: NY – Type depository: type lost (NYSM?).
synonym: *lacustris* LeConte 1860:190 – Synonymy: Wellso, *et al*. 1976:6.
Type locality: Lake Superior – Type depository: MCZC 2647 (Lectotype not designated; the type series contains both sexes).
synonym: *obliterata* Casey 1909:78 (as subspecies of *virginiensis*) – Synonymy: Kerremans 1909:27.
Type locality FL – Type depository: USNM 35731 (♂).
synonym: *brevicollis* Casey 1909:79 (as subspecies of *lacustris*) – Synonymy: Kerremans 1909:29.
Type locality: MA – Type depository: USNM 35732 (♂).
synonym: *melanotum* Muttkowski 1910:135 – Synonymy: Leng 1920:179.
Type locality: WI, Ashland Co., Apostle Islands. – Type depository: MCPM (♂).
synonym: *filigrana* Obenberger 1913:331 (as subspecies of *mariana*; probably introduced into Europe).
Type locality: Grecia. Synonymy: Bílý 1981:348. Type depository: NMPC 20092 (♀).
synonym: *antennalis* Casey 1914:360 (as subspecies of *virginiensis*) – Synonymy: Chamberlin 1926:133.
Type locality: ID – Type depository: USNM 35734 (♀).
synonym: *ingens* Casey 1914:360 – Synonymy: Chamberlin 1926:133.
Type locality: none given – Type depository: USNM 35736 (♀).
Immature stages: Bøving & Craghead 1931: plate 80, figs. H–K (larva).
Taxonomy: Casey 1909; Kerremans 1909; Casey 1914; Wellso, *et al*. 1976; Bílý 1981.
Redescription: Casey 1909:78; Good 1925: plate 9 (wing); Wellso, *et al*. 1976: fig. 4A (♂ genitalia); Akiyama & Ohmomo 2000: fig. 360 (♂, ♀).
Ecology: Howden & Vogt 1951 (biol.); Nelson & Westcott 1976; Nelson, *et al*. 1981; Bright 1987; Nelson 1987a (distr.); MacRae 2006 (biol., distr.).
Distribution: **Canada**: ON; **USA**: AL, AR, CT, DC, DE, FL, GA, IA, IL, IN, KY, LA, MA, MD, ME, MI, MN, MO, MS, NC, NH, OH, OK, PA, SC, TX, VA, WI, WV; also recorded from Mexico. and Central America.
Host(s): larvae in *Pinus echinata* Mill., *P. palustris* Mill., *P. rigida* Mill., *P. strobus* L., *P. taeda* L., *P. virginiana* Mill. and *Taxodium distichum* (L.) Rich.

Tribe Poecilonotini Jakobson 1913

Poecilonotini Jakobson 1913:786.
Type genus: *Poecilonota* Eschscholtz 1829.
Polybothrisidae Gistel 1848b:cover–[3].
Type genus: *Dendrochariessa* Gistel 1848b.
Classification: Volkovitsh 2001; Bellamy 2003a.

Genus *Poecilonota* Eschscholtz 1829

Poecilonota Eschscholtz 1829:9.
Type species: *Buprestis variolosa* Paykull 1799 (fixed by subsequent designation: Opinion 1825, ICZN 1996a:57).
Castalia of authors (in part), not *Castalia*: Lacordaire 1857.
Dendrochariessa Gistel 1848:ix (rejected: Opinion 1825, ICZN 1996a:57).
Descarpentriesina Leraut 1983:6 (rejected: Opinion 1825, ICZN 1996a:57).
Type species: *Buprestis variolosa* Paykull 1799 (fixed by original designation).
Lampra of authors (in part), not *Lampra* Lacordaire 1835 (junior homonym of *Lampra* Hübner 1821).
Latipalpis of authors (in part), not *Latipalpis* Solier 1833.
Polydora Gistel 1848 (erroneously listed as replacement name for *Poecilonota* Eschscholtz 1829, not *Polydora* Gistel 1834).
Immature stages: Chamberlin 1922:53 (larva).
Taxonomy: Chamberlin 1922 (revision); Evans 1957 (revision); Leraut 1983; ICZN 1996; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Redescription: Evans 1957:22; Bright 1987.
Ecology: Chamberlin 1922; 1926; Evans 1957 (biol., distr.).
Key(s): Evans 1957:24 (No. Amer. N. of Mexico.); Barr 1971:60 (Pacific NW); Wellso, *et al*. 1976:8 (MI).

apicilla Obenberger 1928 [syn. of *cyanipes*]

bridwelli Van Dyke 1918:53 (♂, ♀).
Type locality: CA, Imperial Co. – Type depository: CASC 3280 (♂).
Taxonomy: Chamberlin 1922; Evans 1957; Nelson 1989; 1996c.
Redescription: Chamberlin 1922: plate 5 (adults), plate 7 (parts); Evans 1957:36 (♂, ♀), fig. 9 (♂ genitalia); Nelson 1997: figs. 2, 4, 6 (type); Akiyama & Ohmomo 2000: fig. 774 (♂, ♀).
Ecology: Evans 1957 (biol., distr.); Nelson 1965 (biol.).
Distribution: **USA**: AZ, CA; also recorded from Mexico.
Host(s): larvae in *Populus fremontii* S. Wats.

californica Chamberlin 1922:57 (♂, ♀) (as variety of *cyanipes*).
Type locality: CA, Vade – Type depository: CASC 5484 (♂).
Taxonomy: Chamberlin 1922; Evans 1957; Nelson 1989.
Redescription: Evans 1957:26 (♂, ♀), fig. 3 (♂ genitalia); Helfer 1970:95, fig. (adult); Akiyama & Ohmomo 2000: fig. 770 (♂, ♀).
Ecology: Chamberlin 1922; Evans 1957; Barr 1971; Nelson & Westcott 1976 (distr.); Solomon 1995; MacRae 2006 (biol., distr.).
Distribution: **USA**: CA, ID, NV, OR
Host(s): larvae in *Populus tremuloides* Michx. and "cottonwood"; adults also on *Populus fremontii* S. Wats.

collaris Obenberger 1928 [syn. of *cyanipes*]
costicollis (Gory 1841) [syn. of *thureura*]
cupripes Casey 1909 [syn. of *cyanipes*]
cyanipennis Hamilton 1895 [syn. of *cyanipes*]

cyanipes (Say) 1823:164 (*Buprestis*).
Type locality: MO – Type depository: type destroyed.
synonym: *erecta* (Gory) 1841:110 (*Buprestis*) – Synonymy: Crotch 1873:88.
Type locality: "Amer. Bor." – Type depository: MNHN (♂).
synonym: *debilis* LeConte 1860:204 – Synonymy: Horn 1891a:45.
Type locality: MD, Baltimore – Type depository: MCZC 2665 (♀).

misspelling: *cyanipennis* Hamilton 1895:364.
synonym: *cupripes* Casey 1909:168 – Synonymy: Chamberlin 1922:61.
Type locality: WI, Bayfield – Type depository: USNM 35852 (♂) (Lectotype designation: Bellamy & Nelson 1990:295).
synonym: *parviceps* Casey 1909:169 – Synonymy: Chamberlin 1922:62.
Type locality: NM – Type depository: USNM 35853 (♀) (Lectotype designation: Bellamy & Nelson 1990:295).
synonym: *apicilla* Obenberger 1928:181 (as variety of *cyanipes*) – Synonymy: Evans 1957:28.
Type locality: ON, Hamilton – Type depository: NMPC 21974 (♀).
synonym: *collaris* Obenberger 1928:181 (as variety of *cyanipes*) – Synonymy: Evans 1957:28.
Type locality: NY, Buffalo – Type depository: NMPC 21973 (Lectotype not designated; the type series contains both sexes).
Taxonomy: Chamberlin 1922; Evans 1957; Nelson 1989.
Redescription: Chamberlin 1922 (adult, parts); Knull 1925 (adult); Good 1925 (wing); Evans 1957 (♂, ♀, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 771 (♂, ♀).
Ecology: Knull 1920; 1922 (biol.); Chamberlin 1922; Knull 1932; Evans 1957; Barr 1971; Nelson, *et al*. 1981; Nelson & MacRae 1990; Davies 1991 (distr.); Solomon 1995; MacRae 2006 (biol., distr.).
Distribution: **Canada**: AB, BC, MB, NB, NT, ON, PQ, SK, YT; **USA**: AZ, CO, DC, ID, IL, IN, KS, MA, MD, ME, MI, MN MO, MS, MT, ND, NE, NH, NJ, NM, NY, OH, OK, PA, RI, SD, TN, TX, UT, VT, WI, WV, WY
Host(s): larvae in *Populus deltoides* Marsh., *P. grandidentata* Michx., *P. tremuloides* Michx., *Robinia pseudoacacia* L. and *Salix nigra* Marsh.

debilis LeConte 1860 [syn. of *cyanipes*]

erecta (Gory 1841) [syn. of *cyanipes*]

ferrea (Melsheimer) 1845:144 (*Dicerca*).
Type locality: VA – Type depository: MCZC (♀).
Taxonomy: Chamberlin 1922; Evans 1957; Nelson 1989.
Redescription: Chamberlin 1922:59 (♂, ♀), Pls. 6, 7 (adults & parts); Evans 1957:34 (♂, ♀), fig. 5 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 767 (♂).
Ecology: Chamberlin 1922; Evans 1957; Westcott 1991 (biol., distr.); Nelson, *et al*. 1981; Bright 1987; Davies 1991 (distr.).
Distribution: **Canada**: AB, BC, MB, ON, PQ, SK; **USA**: IL, IN, KS, KY, MI, MN, MT, NE, SD, TX, WI
Host(s): larvae in *Populus* sp.

fraseri Chamberlin 1922:64, pls. 5, 7 (adult ♂ & parts).
Type locality: BC, Fraser R. – Type depository: CASC 5479 (♂).
Taxonomy: Chamberlin 1922; Evans 1957; Nelson 1989.
Redescription: Evans 1957:32 (♂, ♀), fig. 7 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 769 (♂, ♀).
Ecology: Chamberlin 1925b; Evans 1957; Barr 1971; Nelson, *et al*. 1981 (biol., distr.); Davies 1991 (distr.).
Distribution: **Canada**: BC; **USA**: CA, OR
Host(s): larvae in *Salix lucida* Muhl. ssp. *lasiandra* (Benth.) E. Murr.

montana Chamberlin 1922:63.
Type locality: MT, Missoula – Type depository: CASC 5480 (Lectotype not designated; the type series contains both sexes).
Taxonomy: Chamberlin 1922; Evans 1957; Nelson 1989.
Redescription: Evans 1957:25 (♂, ♀), fig. 2 (♂ genitalia); Barr 1971: plate 6, fig. 6 (adult); Akiyama & Ohmomo 2000: fig. 768 (♂, ♀).
Ecology: Chamberlin 1922; Knull 1929; Burke 1930; Evans 1957; Beer 1970 (biol.); Barr 1971; Nelson & Westcott 1976; Bright 1987 (biol., distr.); Davies 1991 (distr.).
Distribution: **Canada**: BC, MB; **USA**: CA, ID, MN, MT, NV, OR, PA, WA, WI
Host(s): larvae in *Populus balsamifera* L. ssp. *trichocarpa* (T. & G.) Brayshaw.

parviceps Casey 1909 [syn. of *cyanipes*]

salixi Chamberlin 1925:186 (♂, ♀) (justified emendation).
Type locality: CA, San Diego Co., Warners – Type depository: CASC 5482 (♂).
synonym: *salicis* (original spelling, emended by Chamberlin 1926:229).
Taxonomy: Chamberlin 1925b; 1926; Evans 1957; Nelson 1989.
Redescription: Evans 1957:30 (♂, ♀), fig. 8 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 773 (♂, ♀).
Ecology: Chamberlin 1925b (biol.); Evans 1957; Nelson 1967a (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: CA; also recorded from Mexico.
Host(s): larvae in *Salix lucida* Muhl. ssp. *lasiandra* (Benth.) E. Murr.
thureura (Say) 1832:3 (*Buprestis*).
Type locality: LA – Type depository: type destroyed.
synonym: *costicollis* (Gory) 1841:109 (*Buprestis*) – Synonymy: LeConte 1857a:8.
Type locality: LA – Type depository: MNHN (Lectotype not designated).
Immature stages: Burke 1917a: plate 3, fig. 4 (larva).
Taxonomy: Evans 1957; Nelson 1989.
Redescription: Chamberlin 1922:54 (♂, ♀), plate 5, 7 (adults & parts); Evans 1957:35 (♂, ♀), fig. 6 (♂ genitalia); Knull 1922 (biol.); Akiyama & Ohmomo 2000: fig. 772 (♂, ♀).
Ecology: Chamberlin 1922; Evans 1957; Nelson, *et al.* 1981; Davies 1991(distr.); Solomon 1995 (biol., distr.); Westcott 2005 (distr.).
Distribution: **Canada**: MB; **USA**: CO, FL, GA, IA, IL, IN, KS, LA, MA, MO, NC, NJ, OK, PA, SC, TX, VA
Host(s): larvae in *Salix nigra* Marsh. and *Salix* sp.; adults also on *Cercis canadensis* L.
viridicyanea Nelson 1997:1, figs. 1, 3, 5 (Holotype & parts).
Type locality: CA, San Bernardino Co., Yermo – Type depository: CASC 17419 (♂).
Taxonomy: Nelson 1997.
Ecology: Nelson 1997 (biol., distr.).
Distribution: **USA**: CA
Host(s): larvae in *Chilopsis linearis* (Cav.) Sweet; adults also on *Salix* sp. and flying around *Populus* sp.

Tribe Sphenopterini Lacordaire 1857
Sphenopterides Lacordaire 1857:68.
Type genus: *Sphenoptera* Dejean 1833.
Scutellatae (Section 8, Subdivision 1) Schönherr 1817 (part).
Anthaxidae, Anthaxides Gory & Laporte 1839 (part).
Sphenopterides Lacordaire 1857.
Type genus: *Sphenoptera* Dejean 1833.
Buprestites propres Jacquelin du Val 1859 (part).
Sphenopterini Stein 1868.
Sphenopteridae Quedenfeldt 1886.
Buprestisii Acloque 1896 (part).
Polycestini Reitter 1906 (part).
Sphenopterina Jakobson 1913.
Classification: Kerremans 1893; 1903; 1912; 1913a; 1914; Cobos 1980; Nelson 1982; Bellamy 1985; Hołyński 1993; Bílý 1999a; Kolibác 2001; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Key(s): Kerremans 1893:107; 1903:109, 111; 1912:2 19; 1913a, Vol. 6:174, 188, 262, 265, 313, 377, 387, Vol. 7:1; Bellamy & Nelson 2002:104.

Genus *Sphenoptera* Dejean 1833
Sphenoptera Dejean 1833:81.
Type species: *Buprestis antiqua* Illiger 1803 (fixed by subsequent designation: Volkovitsh & Kalashian 2002:166).
Chrysodera Gistel 1834:11.
Type species: *Buprestis antiqua* Illiger 1803 (fixed by subsequent designation: Bellamy 2003a:10) – Synonymy: Mannerheim 1837:92.
Taxonomy: Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

subgenus *Sphenoptera* (*Chilostetha*) Jakovlev 1889

Sphenoptera (Chilostetha) Jakovlev 1889:84.

Type species: *Sphenoptera basalis* Morawitz 1861 (fixed by subsequent designation: Volkovitsh & Kalashian 1994:103).

jugoslavica Obenberger 1926:207.

Type locality: Istrien; Herzegowina; Macedonien; Bulgarien (Old World) (introduced into No. Amer. in 1979 for biological control of *Centaurea diffusa* Lam., diffuse knapweed) – Type depository: NMPC (Lectotype not designated).

Redescription: Akiyama & Ohmomo 2000: fig. 685 (♂, ♀).

Ecology: Rees, *et al*. 1996 (biol.); Lang, *et al*. 1998; 2000 (distr.).

Distribution: **USA**: CA, CO, ID, MT, OR, SD, UT, WA, WY; also recorded from Europe.

Host(s): larvae in *Centaurea diffusa* Lam.

Tribe Dicercini Gistel 1848

Dicercaeidae Gistel 1848:cover – (3).

Type genus: *Dicerca* Eschscholtz 1829.

Scutellatae (Section 1, Subdivisions 1, 3) Schönherr 1817 (part).

Dicercaeidae Gistel 1848.

Type genus: *Dicerca* Eschscholtz 1829.

Psiloptérides Lacordaire 1857.

Type genus: *Psiloptera* Dejean 1833.

Buprestides, Chalcophorae LeConte 1861 (part).

Dicercites Kerremans 1893.

Type genus: *Dicerca* Eschscholtz 1829.

Chrysochroini Kerremans 1903 (part).

Capnodina Jakobson 1913.

Type genus: *Capnodis* Eschscholtz 1829.

Dicercina Jakobson 1913.

Buprestini Reitter 1916 (part).

Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1903; 1910; Arnett 1962; Nelson 1982; Bellamy 1985; Kurosawa 1993; Hołyński 1993; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.

Key(s): Kerremans 1893:106, 107; 1903:89, 125; 1910:1; Arnett 1962:484; Bellamy & Nelson 2002:104.

Subtribe Hippomelanina Hołyński **1993**

Hippomelanina Hołyński 1993:13, 24.

Type genus: *Hippomelas* Laporte & Gory 1837.

Classification: Casey 1909; Hołyński 1993; Nelson & Bellamy 1996; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Key(s): Casey 1909:50 (part); Nelson & Bellamy 1996:865 (genera & subgenera); Bellamy & Nelson 2002:103 (genera).

Genus *Barrellus* Nelson & Bellamy 1996

Barrellus Nelson & Bellamy 1996:903.

Type species: *Hippomelas femoratus* Knull 1941 (fixed by monotypy).

Taxonomy: Knull 1941; Nelson & Bellamy 1996; Bellamy & Nelson 2002; Bellamy 2003a.

femoratus (Knull) 1941d:386 (*Hippomelas*).

Type locality: CA, San Diego Co., Potrero – Type depository: FMNH (♂).

Taxonomy: Nelson & Bellamy 1996.

Redescription: Nelson & Bellamy 1996:903 (♂, ♀), figs. 48, 49–59, 65, 82, 95, 108 (adult ♂, parts, wing, ♂ genitalia, ovipositor, distr. map).

Ecology: Nelson & Bellamy 1996 (distr.).

Distribution: **USA**: CA

Genus *Gyascutus* LeConte 1858

Gyascutus LeConte 1860:189.

Type species: *Chalcophora planicosta* LeConte 1858 (fixed by subsequent designation: Casey 1909:50).

Taxonomy: Casey 1909; Barr 1970; Nelson 2000; Bellamy & Nelson; 2002; Bellamy 2003a.

Redescription: Casey 1909:60; Barr 1970:4; Nelson & Bellamy 1996:900; Nelson 2000:2253.

Ecology: Nelson 2000.

Key(s): Casey 1909:61; Nelson 2000:2253 (species).

subgenus *Gyascutus* (*Gyascutus*) LeConte 1858

Gyascutus LeConte 1860:189.

Type species: *Chalcophora planicosta* LeConte 1858.

aeneoviridis Casey 1909 [syn. of *carolinensis*]

allenrolfeae (Verity) 1978:161 (♂, ♀) (*Hippomelas*), figs. 1, 2 (holotype, ♂ genitalia).

Type locality: Calif., Imperial Co., 1 mi SE Niland Marina – Type depository: CASC 12978 (♂).

Immature stages: Nelson 2000: fig. 44 (larva).

Taxonomy: Verity 1978; Nelson 2000; Bellamy & Nelson 2002.

Redescription: Nelson 2000:2285 (♂, ♀), figs. 13, 23, 41, 44–46, 50 (adults, antennae, ♂ genitalia, larva, larval workings, distr. map).

Ecology: Verity 1978; Nelson 2000 (biol., distr.).

Distribution: **USA**: AZ, CA; also recorded from Mexico.

Host(s): larvae in *Allenrolfea occidentalis* (S. Wats.) Kuntze.

carolinensis Horn 1883:288.

Type locality: NC, near Wilmington (error) – Type depository: MCZC 8124 (♂).

synonym: *juniperinus* Wickham 1905:167 – Synonymy: Nelson 2000:2280.

Type locality: UT, 22 mi N St. Geo., Pine Vly. Mtns., 4500', Chadburns – Type depository: MCZC 25979 (♀) (Lectotype designation: Nelson 2000:2281).

synonym: *obesus* Casey 1909:65 – Synonymy by Nelson 2000:2280.

Type locality: TX, near El Paso – Type depository: USNM 35717 (♀).

synonym: *aeneoviridis* Casey 1909:66 (as subspecies of *obesus*) – Synonymy: Nelson 2000:2280.

Type locality: TX, El Paso – Type depository: USNM 35718 (♂).

synonym: *compactus* Casey 1909:66 – Synonymy: Nelson 2000:2280.

Type locality: SE AZ – Type depository: USNM 35721 (♀) (Lectotype designation: Bellamy & Nelson 1990:294).

synonym: *cylindrinus* Casey 1909:66 – Synonymy: Nelson 2000:2280.

Type locality: NM – Type depository: USNM 35719 (♂).

synonym: *solidus* Casey 1909:66 (as subspecies of *compactus*) – Synonymy: Nelson 2000:2280.

Type locality: SE AZ – Type depository: USNM 35720 (♀).

synonym: *debilis* Casey 1909:67 – Synonymy: Nelson 2000:2280.

Type locality: SE AZ – Type depository: USNM 35722 (♂).

synonym: *tenuis* Casey 1909:67 – Synonymy: Nelson 2000:2280.

Type locality: SE AZ – Type depository: USNM 35723 (♂).

Taxonomy: Kerremans 1908; Casey 1909; Barr 1970; Nelson 2000.

Redescription: Kerremans 1908:317; Casey 1909:66; Helfer 1970:102 (♂ genitalia); Nelson 2000:2280 (♂, ♀), figs. 11, 22, 31, 37, 48 (adults, antennae, parts, ♂ genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 532 (♂, ♀).

Ecology: Linsley & Ross 1977; Westcott 1991 (biol.); Nelson 2000 (biol., distr.).

Distribution: **USA**: AZ, CA, NM, NV, TX, UT; also recorded from Mexico.

Host(s): larvae in *Croton* sp. roots, *Encelia* sp., *Encelia farinosa* T. & G., *Gutierrezia sarothrae* (Pursh) Britt. & Rusby, *Prosopis glandulosa* Torr. var.*torreyana* (L. Benson) Johnston and *Psorothamnus emory* (Gray) Rydb.; adults also on *Acacia greggii* Gray, *Adenostoma sparsifolium* Torr., *Baccharis sergiloides* Gray, *Cercidium floridum* Gray, *Dalea* sp., *Ephedra californica* S. Wats., *E. trifurca* Torr., *Eriogonum deserticola* S. Wats., *E. fasciculatum* (Benth.) T. & G., *Juniperus californica* Carr., *J. osteosperma* (Torr.) Little, *Larrea tridentata* (DC.) Cov., *Psorothamnus* sp., *Tamarix* sp. and *Viguiera stenoloba* Blake.

compactus Casey 1909 [syn. of *carolinensis*]
cylindrinus Casey 1909 [syn. of *carolinensis*]
debilis Casey 1909 [syn. of *carolinensis*]
dianae (Helfer) 1954:117 (♂, ♀) (*Hippomelas*).
Type locality: CA, Riverside Co., Whitewater – Type depository: CASC 8112 (♂).
Taxonomy: Barr 1970; Nelson 2000.
Redescription: Helfer 1970:94 (adult), 102 (♂ genitalia); Nelson 2000:2283 (♂, ♀), figs. 12, 38, 43, 49 (adults, ♂ genitalia, mating pair, distr. map); Akiyama & Ohmomo 2000: fig. 531 (♂, ♀).
Ecology: Linsley & Ross 1977; Walters 1978 (biol.); Nelson 2000 (biol., distr.).
Distribution: **USA**: AZ, CA, NV; also recorded from Mexico.
Host(s): larvae in *Allenrolfea occidentalis* (S. Wats.) Kuntze, *Datura discolor* Benh. and *Psorothamnus emory* (Gray) Rydb.; adults also on *Acacia greggii* Gray, *Croton wigginsii* Wheeler, *Ephedra californica* S. Wats., *E. trifurca* Torr., *E. viridis* Cov., *Eriogonum deserticola* S. Wats., *Justicia californica* (Benth.) D. Gibson, *Larrea tridentata* (DC.) Cov. and *Parkinsonia aculeata* L.
fidelis Casey 1909 [syn. of *planicosta planicosta*]
fulgidus (Barr) 1969c:321 (♂, ♀) (*Hippomelas*), fig. 1 (♂ genitalia).
Type locality: ID, Owyhee Co., 2 mi SW Bruneau – Type depository: CASC 19217 (♂).
misidentification: *obliterata* of Linsley & Ross 1977:275 (in part), not *obliterata* LeConte 1858.
Taxonomy: Barr 1970; Nelson 2000.
Redescription: Barr 1971: plate 6, fig. 1 (adult); Nelson 2000:2271 (♂, ♀), figs. 6, 30, 34, 48 (adults, abdominal sterna, ♂ genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 533 (♂, ♀).
Ecology: Barr 1969c; Nelson & Westcott 1976; Linsley & Ross 1977 (biol.); Nelson 2000 (biol., distr.).
Distribution: **USA**: CA, ID, NV, OR
Host(s): larvae in *Atriplex confertifolia* (Torr. & Frem.) S. Wats.; adults also on *Artemesia tridentata* Nutt., *Chrysothamnus nauseosus* (Pall.) Britt., *Melilotus albus* Medikus, *Salix exigua* Nutt., *S.lucida* Muhl. ssp. *lasiandra* (Benth.) E. Murr., *Salsola tragus* L. and *Sarcobatus vermiculatus* (Hook.) Torr.
jeanae (Nelson) 1988:279 (♂, ♀) (*Hippomelas*), figs. 1–8 (holotype, parts, ♂ genitalia).
Type locality: CA, Kern Co., Grapevine Cyn., 10 mi NW Inyokern, 1.8 mi W Hwy. 395 – Type depository: CASC 16393 (♂).
misidentification: *metallicus* of Helfer 1970:102 (♂ genitalia), not *metallicus* Casey 1909.
Taxonomy: Nelson 1988; 2000.
Redescription: Nelson 2000:2287 (♂, ♀), figs. 14, 42, 50 (adults, ♂ genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 534 (♂, ♀).
Ecology: Nelson 1988; 2000 (biol., distr.).
Distribution: **USA**: CA
Host(s): adults on *Juniperus californica* Carr., *Populus fremontii* S. Wats. and *Salix lucida* Muhl. ssp. *lasiandra* (Benth.) E. Murr.
juniperinus Wickham 1905 [syn. of *carolinensis*]
obesus Casey 1909 [syn. of *carolinensis*]
pacificus (Chamberlin) 1938b:446 (♂, ♀) (*Hippomelas*).
Type locality: CA, Fresno Co., Rolinda – Type depository: CASC 5477 (♂).
Taxonomy: Barr 1970; Nelson 2000.
Redescription: Nelson & Bellamy 1996: fig. 80 (♂ genitalia); Nelson 2000:2273 (♂, ♀), figs. 7, 18, 49 (adults, antenna, distr. map).
Ecology: Nelson 1962; Linsley & Ross 1977 (biol.); Nelson 2000 (biol., distr.).
Distribution: **USA**: CA
Host(s): larvae in *Suaeda moquinii* (Torr.) Greene; adults also on *Allenrolfea occidentalis* (S. Wats.) Kuntze and *Atriplex polycarpa* (Torr.) S. Wats.
pimalicus Casey 1909 [syn. of *planicosta planicosta*]
pistorius Casey 1909 [syn. of *planicosta obliteratus*]
planicosta cribriceps Casey 1909:62 (as species).
Type locality: AZ – Type depository: USNM 35709 (♂).
synonym: *acutangulus* Casey 1909:63 – Synonymy: Nelson 2000:2268.
Type locality: AZ, Winslow – Type depository: USNM 35711 (♂).

synonym: *amplus* Casey 1909:63 – Synonymy: Nelson 2000:2268.
Type locality: UT, St. George – Type depository: USNM 35713 (♀) (Lectotype designation: Bellamy & Nelson 1990:294).
synonym: *aerata* Casey 1909:64 (as subspecies of *amplus*) – Synonymy: Nelson 2000:2268.
Type locality: UT, St. George – Type depository: USNM 35714 (♀).
synonym: *egregius* Casey 1909:64 – Synonymy: Nelson 2000:2268.
Type locality: UT, St. George – Type depository: USNM 35715 (♀).
synonym: *lariversi* (Barr) 1969c:324 (♂, ♀), fig. 2 (♂ genitalia) (*Hippomelas*) – Synonymy: Nelson 2000:2268.
Type locality: NV, Pershing Co., W side Nightingale Mtns. – Type depository: CASC 10218 (♂)
misidentification: *obliteratus* of authors (in part), not *obliteratus* LeConte 1858.
Taxonomy: Barr 1969c; Nelson 2000.
Redescription: Nelson 2000:2268 (♂, ♀), figs. 3, 47 (adults, distr. map).
Ecology: Nelson 2000 (biol., distr.).
Distribution: **USA**: AZ, CA, CO, NM, NV, UT
Host(s): larvae in *Atriplex hymenelytra* (Torr.) S. Wats.; adults also on *Artemesia tridentata* Nutt., *Atriplex canescens* (Pursh) Nutt., *A. confertifolia* (Torr. & Frem.) S. Wats., *Ephedra* sp., *Prosopis pubescens* Benth., *Salix exigua* Nutt., *Sarcobatus vermiculatus* (Hook.) Torr., *Tamarix gallica* L. and *T. ramosissima* Ledeb.

planicosta obliteratus (LeConte) 1858:66 (*Chalcophora*) (as species).
Type locality: San Diego – Type depository: MCZC 2643 (♀).
synonym: *pistorius* Casey 1909:62 – Synonymy: Nelson 2000:2267.
Type locality: NM, Demming – Type depository: USNM 35710 (♂) (Lectotype designation: Bellamy & Nelson 1994:294.).
misidentification: *planicosta* of authors (in part), not *planicosta* LeConte 1858.
Taxonomy: Kerremans 1908; Casey 1909; Barr 1970; Nelson 2000.
Redescription: Kerremans 1908:316; Casey 1909:64; Good 1925: plate 8, fig. 9 (wing); Nelson 2000:2267 (♂, ♀), figs. 2, 47 (adults, distr. map).
Ecology: Linsley & Ross 1977 (biol.); Nelson 2000 (biol., distr.).
Distribution: **USA**: AZ, NM, TX; also recorded from Mexico.
Host(s): adults on *Acacia greggii* Gray, *Atriplex* sp., *Larrea tridentata* (DC.) Cov., *Mimosa* sp. and *Tamarix* sp.

planicosta planicosta (LeConte) 1858:66 (*Chalcophora*).
Type locality: San Diego – Type depository: MCZC 2642 (♀).
misidentification: *acutangulus* of authors, not *acutangulus* Casey 1909.
misidentification: *aerata* of authors, not *aerata* Casey 1909.
misidentification: *amplus* of authors, not *amplus* Casey 1909.
misidentification: *cribriceps* of authors, not *cribriceps* Casey 1909.
misidentification: *obliteratus* of authors (in part), not *obliteratus* LeConte 1858.
misidentification: *pistorius* of authors, not *pistorius* Casey 1909.
synonym: *snowi* Casey 1909:62 – Synonymy: Leng 1920:179.
Type locality: AZ, Bill William's Fork – Type depository: USNM 35708 (♂).
synonym: *pimalicus* Casey 1909:63 – Synonymy: Leng 1920:179.
Type locality: AZ – Type depository: USNM 35712 (♀).
synonym: *fidelis* Casey 1909:65 – Synonymy: Leng 1920:179.
Type locality: SE AZ – Type depository: USNM 35716 (♂) (Lectotype designation: Bellamy & Nelson 1990:294).
Taxonomy: Kerremans 1908; Casey 1909; Barr 1970; Nelson 2000.
Redescription: Kerremans 1908:314; Casey 1909:61; Nelson 2000:2261 (♂, ♀), figs. 1, 15, 27, 33, 47 (adults, antennae, abdominal ventrites, ♂ genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 529 (♂, ♀).
Ecology: Cazier 1951b (distr.); Alcock 1976; Linsley & Ross 1977 (biol.); Nelson 2000 (biol., distr.).
Distribution: **USA**: AZ, CA, NV; also recorded from Mexico.
Host(s): larvae in *Atriplex canescens* (Pursh) Nutt., *A. hymenelytra* (Torr.) S. Wats., *A. lentiformis* (Torr.) S. Wats., *A. l.* ssp. *torreyi* (S. Wats.) Hall & Chem., *Encelia farinosa* T. & G. and *Suaeda moquinii* (Torr.) Greene; adults also on *Acacia greggii* Gray, *Allenrolfea occidentalis* (S. Wats.) Kuntze,

Cercidium floridum Gray, *C. microphyllum* (Torr.) Rose & Johnston, *Larrea tridentata* (DC.) Cov., *Medicago sativa* L., *Pluchea sericea* (Nutt.) Cov., *Prosopis glandulosa* Torr. var. *torreyana* (L. Benson) Johnston, *P. pubescens* Benth., *Psorothamnus spinosus* (Gray) Barneby and *Tamarix gallica* L.

snowi Casey 1909 [syn. of *planicosta planicosta*]
solidus Casey 1909 [syn. of *carolinensis*]
tenuis Casey 1909 [syn. of *carolinensis*]

subgenus *Gyascutus* (*Stictocera*) Casey 1909
Stictocera Casey 1909:69 (as genus).
Type species: *Chalcophora caelata* LeConte 1858 (fixed by orignal designation).
Taxonomy: Casey 1909; Barr 1970; Nelson 1981; Bellamy 1985; Nelson & Bellamy 1996; Bellamy & Nelson 2002; Bellamy 2003a.
Redescription: Barr 1970:6; Nelson & Bellamy 1996:900.
Ecology: Nelson & Bellamy 1996 (biol., distr.).
Key(s): Casey 1909:69.

caelatus (LeConte) 1858:67 (*Chalcophora*).
Type locality: Sonora, Ures – Type depository: MCZC 2645 (♂).
synonym: *pollens* (Casey) 1909:69 (*Stictocera*) – Synonymy: Leng 1920:179.
Type locality: TX, near El Paso – Type depository: USNM 35725 (♀) (Lectotype designation: Bellamy & Nelson 1990:296).
synonym: *laticornis* (Casey) 1909:70 (*Stictocera*) – Synonymy: Leng 1920:179.
Type locality, AZ, Tucson – Type depository: USNM 35724 (♀) (Lectotype designation: Bellamy & Nelson 1990:296).
Taxonomy: Kerremans 1908; Casey 1909; Barr 1970; Nelson & Bellamy 1996.
Redescription: Kerremans 1908:312; Casey 1909:69; Helfer 1970:102 (♂ genitalia); Linsley & Ross 1977: fig. 1 (adult); Nelson & Bellamy 1996:901 (♂, ♀), figs. 17, 42, 47, 63, 78, 94, 106, 110 (parts, wing, ♂genitalia, ovipositor, distr. map); Akiyama & Ohmomo 2000: fig. 535 (♂, ♀).
Ecology: Cazier 1951b (distr.); Linsley & Ross 1977 (biol.); Nelson & Bellamy 1996; Davidson & Davidson 2005 (biol., distr.).
Distribution: **USA**: AZ, NM, TX; also recorded from Mexico.
Host(s): adults on *Acacia constricta* Benth., *A. greggii* Gray, *A. neovernicosa* Isely and *Prosopis glandulosa* Torr.

laticornis (Casey 1909) [syn. of *caelatus*]
pollens (Casey 1909) [syn. of *caelatus*]

Genus *Hippomelas* Laporte & Gory 1837
Hippomelas Laporte & Gory 1837:92 (as subgenus of *Buprestis*).
Type species: *Buprestis* (*Hippomelas*) *mexicana* Laporte & Gory 1837 (fixed by monotypy).
Taxonomy: Kerremans 1908; Casey 1909; Barr 1970; Nelson 1982; Nelson & Bellamy 1996; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Redescription: Kerremans 1908:307; Casey 1909:55; Barr 1970:4; Nelson & Bellamy 1996:865.
Ecology: Linsley & Ross 1977; Nelson & Bellamy 1996.
Key(s): Kerremens 1908:309; Casey 1909:55; Barr 1971:56 (Pacific NW); Nelson & Bellamy 1996:866.

cylindricus Casey 1909 [syn. of *planicauda*]
grossus Casey 1909 [syn. of *sphenicus*]
martini Nelson *in* Nelson & Bellamy 1996:872 (♂, ♀), figs. 46, 72, 85, 108 (metacoxa, ♂ genitalia, ovipositor, distr.).
Type locality: Mexico: Sinaloa, Culiacan – Type depository: CASC 17280 (♂).
Taxonomy: Nelson & Bellamy 1996.
Ecology: Nelson & Bellamy 1996 (biol., distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): adults on *Antigonon leptopus* H. & A.

parkeri Nelson *in* Nelson & Bellamy 1996:891 (♂, ♀), figs. 76, 90, 110 (♂ genitalia, ovipositor, distr. map).
Type locality: AZ; Gila Co., 12 mi E Globe, Gilson Butte – Type depository: CASC 17281 (♂).
Taxonomy: Nelson & Bellamy 1996.
Ecology: Nelson & Bellamy 1996 (biol., distr.).
Distribution: **USA**: AZ
Host(s): adults on *Acacia greggii* Gray and *Calliandra eriophylla* Benth.

planicauda Casey 1909:57.
Type locality: Southern AZ – Type depository: USNM 35704 (♀) (Lectotype designation: Bellamy & Nelson 1990:294).
synonym: *cylindricus* Casey 1909:58 – Synonymy: Leng 1920:179.
Type locality: AZ, Nogales – Type depository: USNM 35705 (♂).
Taxonomy: Casey 1909; Barr 1970; Nelson & Bellamy 1996.
Redescription: Nelson & Bellamy 1996:878 (♂, ♀), figs. 43–45, 73, 87, 104, 108 (tibiae, ♂ genitalia, ovipositor, feeding, distr. map); Akiyama & Ohmomo 2000: fig. 524 (♂, ♀).
Ecology: Linsley & Ross 1977 (biol.); Nelson & Bellamy 1996 (biol., distr.).
Distribution: **USA**: AZ, NM, TX; also recorded from Mexico.
Host(s): adults on *Acacia greggii* Gray, *A. neovernicosa* Isely, *Eriogonum* sp., *Mimosa aculeaticarpa* Ortega var *biuncifera* (Benth.) Barneby, ♂ *dysocarpa* Benth. and *Prosopis glandulosa* Torr.

robustus Casey 1909 [syn. of *sphenicus*]

serrulatus Casey 1909 [syn. of *sphenicus*]

sphenicus (LeConte) 1854:83 (*Buprestis*).
Type locality: TX, Laredo to Ringgold Barracks – Type depository: MCZC 2644 (♂).
synonym: *grossus* Casey 1909:56 – Synonymy: Leng 1920:179.
Type locality: Western TX – Type depository: USNM 35702 (♀) (Lectotype designation: Bellamy & Nelson 1990:294).
synonym: *robustus* Casey 1909:57 (ssp. of *grossus*) – Synonymy: Leng 1920:179.
Type locality: Western TX – Type depository: USNM 35701.
synonym: *serrulatus* Casey 1909:57 – Synonymy: Leng 1920:179.
Type locality: AZ, Tucson – Type depository: USNM 35703.
Taxonomy: Kerremans 1908; Casey 1909; Barr 1970; Nelson & Bellamy 1996.
Redescription: Kerremans 1908:310; Casey 1909:57; Helfer 1970:102 (♂ genitalia); Linsley & Ross 1977, fig. 2 (♂, ♀); Nelson & Bellamy 1996:889 (♂, ♀), figs. 8, 12–15, 77, 89, 109 (epipleuron, parts, ♂ genitalia, ovipositor distr. map); Akiyama & Ohmomo 2000: fig. 526 (♂, ♀).
Ecology: Vogt 1949b; Cazier 1951b (distr.); Linsley & Ross 1977; Nelson & Bellamy 1996 (biol., distr.); MacRae & Nelson 2003 (biol.).
Distribution: **USA**: AZ, NM, TX; also recorded from Mexico.
Host(s): adults on *Acacia greggii* Gray, *Anisacanthus thurberi* (Torr.) Gray, *Cercidium floridum* Gray, *Chrysothamnus* sp. and *Larrea tridentata* (DC.) Cov.

Genus *Prasinalia* Casey 1909

Prasinalia Casey 1909:56.
Type species: *Gyascutus cuneatus* Horn 1868 (fixed by subsequent designation: Barr 1970:7).
Immature stages: Nelson & Bellamy 1996:893, figs. 98, 99 (larva).
Taxonomy: Casey 1909; Barr 1970; Nelson & Bellamy 1996; Bellamy & Nelson 2002; Bellamy 2003a.
Redescription: Barr 1970:7; Nelson & Bellamy 1996:893.
Key(s): Casey 1909:59; Nelson & Bellamy 1996:893.

angustus Casey 1909 [syn. of *cuneata*]

cuneata (Horn) 1868:133 (*Gyascutus*).
Type locality: CA, Owens Valley – Type depository: MCZC 33786 (♂).
synonym: *angustus* Casey 1909:59 – Synonymy: Leng 1920:179.
Type locality: AZ, Florence – Type depository: USNM 35707.
synonym: *metallicus* Casey 1909:59 – Synonymy: Leng 1920:179.
Type locality: Southern CA – Type depository: USNM 35706.
Taxonomy: Kerremans 1908: Casey 1909; Barr 1970; Nelson & Bellamy 1996.

Redescription: Kerremans 1908:318; Casey 1909:59; Helfer 1970:102 (♂ genitalia); Nelson & Bellamy 1996:893, 896 (♂, ♀), figs. 16, 38–41, 61, 79, 110 (♂ metatarsus, ♂ and parts, wing, ♂ genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 527 (♂, ♀).
Ecology: Nelson 1959; Linsley & Ross 1977 (biol.); Nelson & Bellamy 1996 (biol., distr.).
Distribution: **USA**: AZ, CA; also recorded from Mexico.
Host(s): adults on *Acacia greggii* Gray, *Larrea tridentata* (DC.) Cov., *Populus fremontii* S. Wats., *Prosopis glandulosa* Torr., *P. pubescens* Benth., *Salix* sp. and *Tamarix* sp.

imperialis (Barr) 1969c:326 (♂, ♀) (*Hippomelas*).
Type locality: CA, Imperial Co., 4 mi W Gordon's Well – Type depository: CASC 10341 (♂).
Immature, stages: Nelson & Bellamy 1996:899, figs. 98, 99, 102, 103 (larval workings, larva, anterior part of head).
Taxonomy: Barr 1970; Nelson & Bellamy 1996.
Redescription: Nelson & Bellamy 1996:899 (♂, ♀), figs. 62, 92, 110 (wing, ovipositor, distr. map); Akiyama & Ohmomo 2000: fig. 528 (♂, ♀).
Ecology: Barr 1969c; Walters 1975; Linsley & Ross 1977 (biol.); Nelson & Bellamy 1996 (biol., distr.).
Distribution: **USA**: CA
Host(s): larvae in *Eriogonum deserticola* S. Wats.; adults also on *Ephedra trifurca* Torr.

metallicus Casey 1909 [syn. of *cuneata*]

Subtribe Dicercina Gistel 1848

Dicercaeidae Gistel 1848:cover – (3).
Type genus: *Dicerca* Eschscholtz 1829.
Dicercina: Bellamy 2003a:45.

***Lampetis* generic group (Tribal level) sensu Volkovitsh 2001**

Lampetis generic group Volkovitsh 2001:56.
Classification: Bellamy 2003b; Bílý & Volkovitsh 2003.

Genus *Lampetis* Dejean 1833

Lampetis Dejean 1833:76.
Type species: *Buprestis bioculata* Olivier 1790 (fixed by subsequent designation: Lacordaire 1857:30).

subgenus *Lampetis* (*Spinthoptera*) Casey 1909

Spinthoptera Casey 1909:71.
Type species: *Psiloptera valens* LeConte 1858 (= *drummondi* (Laporte & Gory 1837)) (fixed by original designation).
Taxonomy: Casey 1909; Kerremans 1910; Bellamy 1985; Nelson 1986 (as *Psiloptera*); Kurosawa 1993; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Redescription: Kerremans 1910:35; Nelson 1986:274 (as *Psiloptera*).
Key(s): Casey 1909:72 (USA); Kerremans 1910:35 (world); Nelson 1986:274 (USA).

arizonica (Casey 1909) [syn. of *webbii*]
caseyi (Kerremans 1910) [syn. of *drummondi*]
convexa (Casey 1909) [syn. of *drummondi*]

cupreopunctata (Schaeffer) 1905:147 (*Psiloptera*).
Type locality: TX, Brownsville, Esperanza Ranch – Type depository: USNM (♂) (Lectotype designation: Nelson 1986:276).
Taxonomy: Casey 1909; Kerremans 1910; Nelson 1986; Corona 2005.
Redescription: Casey 1909:74; Kerremans 1910:141; Nelson 1986:275 (♂, ♀), figs. 1, 4 (adult, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 592 (♂, ♀); Corona 2005:755.
Ecology: Vogt 1949b (biol.); Nelson 1986 (biol., distr.).
Distribution: **USA**: TX; also recorded from Mexico.
Host(s): adults on *Acacia farnesiana* (L.) Willd., *Prosopis glandulosa* Torr., *Sideroxylon celastrinum* (Kunth) T.D. Pennington and *Sorghum bicolor* (L.) Moench.

drummondi (Laporte & Gory) 1837:37, plate 9, fig. 44 (adult) (*Buprestis*).
Type locality: Mexico – Type depository: MNHN (Lectotype not designated).
synonym: *woodhousei* (LeConte) 1852:68 (*Dicerca*) – Synonymy: Nelson 1986:276.
Type locality: NM – Type depository: MCZC 2652 (♀) (Lectotype designation: by Nelson 1986:279).
synonym: *valens* (LeConte) 1858:66 (*Psiloptera*) – Synonymy: Leng 1920:179.
Type locality: TX, Eagle Pass – Type depository: MCZC 2650 (♀) (Lectotype designation: Nelson 1986:279).
synonym: *convexa* (Casey) 1909:72 (*Spinthoptera*) (preoccupied: *convexa* Laporte & Gory 1836:58).
Type locality: TX, El Paso – Type depository: USNM 35726.
synonym: *ocularis* (Casey) 1909:73 (*Spinthoptera*) – Synonymy: Leng 1920:179
Type locality: W TX – Type depository: USNM 35727 (Lectotype designation: by Nelson 1986:279).
synonym: *parva* (Casey) 1909:73 (*Spinthoptera*) – Synonymy: Nelson 1986:276.
Type locality: TX – Type depository: USNM 35728 (♂) (Lectotype designation: Nelson 1986:279).
synonym: *caseyi* (Kerremans) 1910:126 (*Psiloptera*) (as replacement name for *convexa* Casey 1909) – Synonymy: Leng 1920:179.
Taxonomy: Kerremans 1910; Nelson 1986; Corona 2005.
Redescription: Kerremans 1910:130; Good 1925: plate 9 (wing); Nelson 1986:276 (♂, ♀) figs. 2, 5 (adult, ♂ genitalia); Nelson, *et al*. 1996 (variation); Akiyama & Ohmomo 2000: fig. 597 (♂, ♀); Corona 2005:758.
Ecology: Marlatt 1891; Vogt 1949b; Dobson & Wats 1956 (biol.); Nelson 1986; Davidson & Davidson 2005; MacRae 2006 (distr., biol.).
Distribution: **USA**: AZ, CO, KS, LA, MO, NM, OK, TX; also recorded from Mexico.
Host(s): adults on *Acacia berlandieri* Benth., *A. constricta* Benth, *A. greggii* Gray, *A. rigidula* Benth., *Carya illinoensis* (Wangenh.) K. Koch, *Chilopsis linearis* (Cav.) Sweet, *Condalia* sp., *Dalea multiflora* (Nutt.) Shinner, *Diospyros texana* Scheele, *Euphorbia* sp., *Fallugia paradoxa* (D. Don) Endl., *Gleditsia triacanthos* L., *Gossypium* sp., *Karwinskia humboldtiana* (J. A. Schultes) Zucc., *Nolina microcarpa* S. Wats., *Prosopis pubescens* Benth., *Rhus virens* Lindheimer ex Gray var. *choriophylla* (Woot. & Standl.) L. Benson, *Quercus gravesii* Sudw., *Salix* sp. and *Tamarix* sp.
ocularis (Casey 1909) [syn. of *drummondi*]
parva (Casey 1909) [syn. of *drummondi*]
valens (LeConte 1858) [syn. of *drummondi*]
webbii (LeConte) 1858:66 (*Psiloptera*).
Type locality: Mexico: Sonora, Ures. – Type depository: MCZC 2651 (♀) (Lectotype designation: Nelson 1986:282).
synonym: *arizonica* (Casey) 1909:74 (*Spinthoptera*) – Synonymy: Leng 1920:179.
Type locality: AZ – Type depository: USNM 35729 (♀) (Lectotype designation: Nelson 1986:282).
Taxonomy: Casey 1909; Kerremans 1910; Nelson 1986; Corona 2005.
Redescription: Casey 1909:75; Kerremans 1910:132; Nelson 1986:281 (♂, ♀), figs. 3, 6–8 (adult, ♂ genitalia, antenna); Akiyama & Ohmomo 2000: fig. 598 (♂, ♀); Corona 2005:774.
Ecology: Burke 1918a (biol.); Cazier 1951b (distr.); Nelson 1986 (biol., distr.).
Distribution: **USA**: AZ, NM, TX; also recorded from Mexico.
Host(s): larvae in *Cercidium floridum* Gray; adults also on *Acacia greggii* Gray, *Sideroxylon lanuginosa* (Michx.) Pers., *Chrysothamnus nauseosus* (Pall.) Britt., *Juniperus* sp., *Larrea tridentata* (DC.) Cov., *Prosopis glandulosa* Torr., *Quercus arizonica* Sarg., *Q. oblongifolia* Torr., *Rhus virens* Lindheimer ex Gray var. *choriophylla* (Woot. & Standl.), L. Benson and *Salix gooddingii* Ball.
woodhousei (LeConte 1852) [syn. of *drummondi*]

Dicerca generic group (Tribal level) sensu Volkovitsh 2001

Dicerca generic group Volkovitsh 2001:56.
Classification: Bellamy 2003a; Bílý & Volkovitsh 2003.

Genus *Dicerca* Eschscholtz 1829

Dicerca Eschscholtz 1829:9 (original spelling emended: Lacordaire 1857; verified by Opinion 1784, ICZN 1994).
Type species: *Buprestis aenea* Linnaeus 1758 (fixed by subsequent designation: Westwood 1838:24).
Argante Gistel 1834:10.

Type species: *Buprestis moesta* Fabricius 1793 (fixed by subsequent designation: Richter 1952:108).

Stenuris Kirby 1837:154.

Type species: *Buprestis lurida* Fabricius 1775 (fixed by original designation) – Synonomy: Lacordaire 1857:35.

Immature stages: Burke 1917a:6 (larva).

Taxonomy: Casey 1909; Nelson 1975b (revision No. Amer. sp.); Nelson & Alten 1998; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Casey 1909:128; Nelson 1975b:91; Bright 1987:51.

Ecology: Nelson 1975b (biol., distr.).

Key(s): Barr 1971:58 (Pacific NW); Nelson 1975b:96 (N AMER.); Wellso, *et al*. 1976:6 (MI); Bright 1987:52 (Canada & AK); MacRae 1991:107 (MO).

subgenus *Dicerca* (*Dicerca*) Eschscholtz 1829

Dicerca Eschscholtz 1829:9.

Type species: *Buprestis aenea* Linnaeus 1758.

abrupta Casey 1909 [syn. of *caudata*]

aestiva Casey 1909 [syn. of *divaricata*]

ampliata Casey 1909 [syn. of *hornii hornii*]

angusticauda Casey 1909 [syn. of *divaricata*]

aurichalcea Melsheimer 1845 [syn. of *divaricata*]

asperata (Laporte & Gory) 1837:105, plate 27, fig. 143 (adult) (*Buprestis*).

Type locality: "Amer. Bor." – Type depository: MNHN.

synonym: *molitor* Melsheimer 1845:144 – Synonymy: Nelson 1975b:144.

Type locality: PA – Type depository: type lost (MCZC?).

misidentification: *scobina* of authors, not *scobina* Chevrolat 1838.

Taxonomy: Casey 1909 (as *scobina*); Nelson 1975b.

Redescription: Casey 1909:163 (as *scobina*); Nelson 1975b:144 (♂, ♀) figs. 57, 81 (♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 756 (♀).

Ecology: Nelson 1975b; Peck & Thomas 1998; MacRae & Nelson 2003 (distr.); Wellso & Jackman 2006 (biol., distr.).

Distribution: **Canada**: PQ; **USA**: AL, CT, DC, FL, GA, IA IL, IN, MA, MD, MI, MO, MS, NC, NH, NJ, NY, OH, PA, RI, SC, TX, VA, WV

Host(s): larvae in *Quercus* sp.

baltimorensis (Herbst 1801) [syn. of *obscura*]

biangulata Casey 1909 [syn. of *caudata*]

cajonensis Knull 1944b:90, plate 1, fig. 8 (adult ♀) (as subspecies of *querci*).

Type locality: CA, Cajon Pass – Type depository: FMNH (♀).

Taxonomy: Nelson 1975b; Nelson & Alten 1998.

Immature stages: Nelson & Alten 1998:234 figs. 8–10 (larval workings, larva).

Redescription: Nelson 1975b:160 (♀), fig. 20 (♀ last abd. ventrite); Nelson & Alten 1998:235 (♂), figs. 1, 3, 5, 7 (parts ♂, ♀, ♂ genitalia).

Ecology: Nelson 1975b (biol., distr.); Nelson & Alten 1998 (biol.).

Distribution: **USA**: CA

Host(s): larva in *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.).

callosa callosa Casey 1909:150.

Type locality: NY – Type depository: USNM 35839 (♀).

synonym: *rigida* Casey 1909:150 – Synonymy: Nelson 1975b:122.

Type locality: MI, Lake Superior, Whitefish Point – Type depository: USNM 35840 (♀).

synonym: *tetrica* Casey 1909:151 – Synonymy: Nelson 1975b:122.

Type locality: ON, Port Hope – Type depository: USNM 35841 (♀).

Taxonomy: Casey 1909; Nelson 1975b.

Redescription: Nelson 1975b:122 (♂, ♀), figs. 37, 50, 72 (antenna, ♂ genitalia, adult).

Ecology: Nelson 1975b (biol., distr.); Westcott 1991; Davies 1991 (distr.).

Distribution: **Canada**: AB, BC, MB, NT, ON, PQ, SK, YT; **USA**: AK, CO, ME, MI, MN, ND, NH, NY, SD, WY

Host(s): adults on *Betula* sp., *Populus tremuloides* Michx. and *Salix* sp.

callosa frosti Nelson 1963:65 (♂, ♀), figs. 1, 2 (♂ genitalia, tibia) (as species).
Type locality: OR, Harney Co., Steens Mtns. – Type depository: CASC 8117 (♂).
Taxonomy: Nelson 1963; 1975b.
Redescription: Nelson 1975b:125 (♂, ♀), figs. 27, 38, 73 (♂ mesotibia, antenna, adult); Akiyama & Ohmomo 2000: fig. 750 (♂, ♀).
Ecology: Nelson 1975b (biol., distr.); Davies 1991 (distr.).
Distribution: **Canada**: AB, BC; **USA**: AZ, CA, CO, ID, MT, NV, OR, UT, WY
Host(s): adults on *Populus tremuloides* Michx.

caudata LeConte 1860:195.
Type locality: Middle States – Type depository: MCZC 2654 35818 (♀).
synonym: *abrupta* Casey 1909:139 – Synonymy: Leng 1920:180.
Type locality: MA – Type depository: USNM (♀).
synonym: *biangulata* Casey 1909:140 – Synonymy: Leng 1920:180.
Type locality: NH, Hampton – Type depository: USNM 35819 (♂).
synonym: *inflatula* Casey 1909:140 – Synonymy: Leng 1920:180.
Type locality: MA – Type depository: USNM 35820 (♀).
synonym: *pisciformis* Casey 1909:140 – Synonymy: Leng 1920:180.
Type locality: MA – Type depository: USNM 35821 (♀) (Lectotype designation: Nelson 1985b:138).
synonym: *cupreola* Casey 1909:141 – Synonymy: Leng 1920:180.
Type locality: MA – Type depository: USNM 35823 (♂).
synonym: *filiola* Casey 1909:141 (as subspecies of *cupreola*) – Synonymy: Leng 1920:180.
Type locality: MA – Type depository: USNM 35824 (♂).
synonym: *longicauda* Casey 1909:141 (as subspecies of *pisciformis*) – Synonymy: Leng 1920:180.
Type locality: MA – Type depository: USNM 35822 (♀) (Lectotype designation: Nelson 1985b:138).
Taxonomy: Casey 1909; 1914; Nelson 1975b.
Redescription: Casey 1909:142; Nelson 1975b:135 (♂, ♀), figs. 54, 75 (♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 753 (♂, ♀).
Ecology: Downie 1958 (biol.); Nelson 1975b; Nelson, *et al*. 1981; 1996; Bright 1987; Davies 1991 (distr.); MacRae 2006 (biol., distr.).
Distribution: **Canada**: AB, BC, MB, MT, NS, NT, ON, PQ, SK; **USA**: AZ, CO, CT, DC, DE, IA, IL, IN, LA, MA, MD, ME, MI, MN, ND, NC, NE, NH, NJ, ND, NY, OH, PA, RI, SD, UT, VA, VT
Host(s): larvae in *Alnus* sp. and *Betula nigra* L.; adults also on *Alnus incana* (L.), Moench, *Betula occidentalis* Hook., *Crataegus* sp., *Malus sylvestris* Mill., *Prunus persica* (L.) Batsch. and *P. virginiana* L.

consimilis (Laporte & Gory 1837) [syn. of *obscura*]

cupreola Casey 1909 [syn. of *caudata*]

divaricata (Say) 1823:163 (*Buprestis*).
Type locality: USA – Type depository: type destroyed.
synonym: *aurichalcea* Melsheimer 1845:142 – Synonymy: LeConte 1860:195.
Type locality: VA – Type depository: type lost (MCZC?) (♀).
synonym: *dubia* Melsheimer 1845:142 – Synonymy: LeConte 1860:195.
Type locality: PA – Type depository: type lost (MCZC?) (♂).
synonym: *parumpunctata* Melsheimer 1845:143 – Synonymy: LeConte 1860:195.
Type locality: PA – Type depository: type lost (MCZC?) (♂).
synonym: *subaequalis* Casey 1909:142 – Synonymy: Nelson 1975b:132.
Type locality: PA, Allegheny – Type depository: USNM 35836 (♂).
synonym: *nigra* Casey 1909:143 – Synonymy: Nelson 1975b:132.
Type locality: NY, Adirondack Mtns. – Type depository: USNM 35826 (♂).
synonym: *incisa* Casey 1909:144 (as subspecies of *divaricata*) – Synonymy: Leng 1920:180.
Type locality: IN – Type depository: USNM 35828 (♀).
synonym: *limula* Casey 1909:144 (as subspecies of *divaricata*) – Synonymy: Leng 1920:180.
Type locality: NY, Buffalo – Type depository: USNM 35827 (♀).
synonym: *aestiva* Casey 1909:145 – Synonymy: Leng 1920:180.
Type locality: VT, Bennington Co. – Type depository: USNM 35829 (♂).
synonym: *rustica* Casey 1909:146 – Synonymy: Leng 1920:180.

Type locality: NH, Hampton – Type depository: USNM 35830 (♀).
synonym: *vancouveri* Casey 1909:147 – Synonymy: Leng 1920:180.
Type locality: BC, Vancouver Isld., Victoria (prob. error) – Type depository: USNM 35834 (♀).
synonym: *angusticauda* Casey 1909:148 – Synonymy: Leng 1920:180.
Type locality: WI – Type depository: USNM 35835 (♂).
Taxonomy: Casey 1909; Nelson 1975b.
Redescription: Casey 1909:143; Good 1925 (wing); Nelson 1975b:132 (♂, ♀), figs. 35, 53, 77 (antecoxa, ♂ genit, adult); Akiyama & Ohmomo 2000: fig. 752 (♂, ♀).
Ecology: Nelson 1975b; Bright 1987; Davies 1991 (distr.); MacRae 2006 (biol., distr.).
Distribution: **Canada**: AB, MB, NB, NS, ON, PQ, SK; **USA**: AL, CT, DC, DE, GA, IA, IL, IN, MA, MD, ME MI, MN, NC, ND, NE, NH, NJ, NY, OH, PA, RI, SD, TX, UT, VA, VT, WI, WV; also recorded from the West Indies.
Host(s): larvae in *Acer pennsylvanicum* L., *A. saccharum* Marsh., *Betula lenta* L., *Cercis canadensis* L., *Fraxinus americana* L., *F. nigra* Marsh., *Ostrya virginiana* (Mill.) K. Koch., *Quercus alba* L., *Q. rubra* L. and *Ulmus americana* L.; adults also on *Abies* sp., *Acer negundo* L., *A.rubrum* L., *Betula alleghaniensis* Britt., *Fagus grandifolia* Ehrh., *Pinus* sp., *Populus balsamifera* L. and *Prunus* sp.

dubia Melsheimer 1845 [syn. of *divaricata*]
erosa Casey 1909 [syn. of *lurida*]
filiola Casey 1909 [syn. of *caudata*]
floridae Casey 1909 [syn. of *lurida*]
frosti Nelson 1963 [ssp. of *callosa*]
gaudens Casey 1909 [syn. of *lurida*]
gracilis Casey 1909 [syn. of *lurida*]

hesperoborealis Hatch & Beer 1938:151.
Type locality: WA, Wawawai – Type depository: OSUO (♀).
Taxonomy: Barr 1971; Nelson 1975b.
Redescription: Nelson 1975b:129 (♂, ♀), figs. 34, 52, 74 (antecoxa, ♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 751 (♂, ♀).
Ecology: Nelson 1975b (biol., distr.); Bright 1987; Davies 1991 (distr.); Westcott 2005.
Distribution: **Canada**: AB, BC; **USA**: CA, ID, MT, OR, UT, WA
Host(s): larvae in *Alnus* sp.and *Betula occidentalis* Hook.; adults also on *Alnus incana* (L.) Moench ssp. *tenuifolia* (Nutt.) Breitung.

hornii hornii Crotch 1873:86.
Type locality: CA – Type depository: MCZC 5077 (♂).
synonym: *ampliata* Casey 1909:153 (as subspecies of *hornii*) – Synonymy: Leng 1920:180.
Type locality: CA, Kaweah – Type depository: USNM 35842 (♀).
Taxonomy: Casey 1909; Nelson 1975b.
Redescription: Casey 1909:152; Nelson 1975b:157 (♂, ♀), figs. 32, 41, 82 (♂ mesotibia, ♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 760 (♂, ♀).
Ecology: Nelson 1975b (biol., distr.); Nelson, *et al*. 1981 (biol.); Davies 1991 (distr.).
Distribution: **Canada**: BC; **USA**: AZ, CA, ID, NV, OR, UT, WA
Host(s): larvae in *Alnus rhombifolia* Nutt., *Ceanothus cuneatus* (Hook.) Nutt., *Juglans regia* L. and *Rhamnus californica* Esch.; adults also on *Alnus rubra* Bong., *Ceanothus crassifolius* Torr., *C. integerrimus* H. & A., *C. oliganthus* Nutt. ex T. & G., *C. thyrsiflorus* Esch., *Cercocarpus betuloides* T. & G., *C. ledifolius* Nutt., *Prunus* spp., *Quercus wislezeni* A. DC., *Salix exigua* Nutt. and *Symphoricarpos* sp.

hornii nelsoni Beer 1974:49 (♂, ♀).
Type locality: CA, Inyo Co., E flank Sierra Nevada Rge., Cottonwood Cr. – Type depository: CASC 12045 (♂).
Taxonomy: Beer 1974; Nelson 1975b.
Redescription: Nelson 1975b:160 (♂, ♀).
Ecology: Nelson 1975b; Nelson, *et al*. 1996 (biol., distr.).
Distribution: **USA**: CA
Host(s): adults on *Betula occidentalis* Hook. and *Salix exigua* Nutt.

impressifrons Melsheimer 1845 [syn. of *spreta*]
incisa Casey 1909 [syn. of *divaricata*]

indistincta Melsheimer 1845 [syn. of *lurida*]
indurata Casey 1909 [syn. of *lurida*]
inflatula Casey 1909 [syn. of *caudata*]
juncea Knull 1958b:153 (♂, ♀), fig. 1 (♂ genitalia).
Type locality: FL, Navarre – Type depository: FMNH (♂).
Taxonomy: Knull 1958b; Nelson 1975b.
Redescription: Nelson 1975b: figs. 59, 84 (♂ genitalia, adult).
Ecology: Nelson 1975b; MacRae 2006 (biol., distr.).
Distribution: **USA**: AL, FL, GA, LA, MS, NC, SC
Host(s): adults on *Acer* sp., *Cyrilla racemiflora* L., *Prunus persica* (L.) Batsch. and *Quercus* sp.
lepida LeConte 1857a:7.
Type locality: PA – Type depository: MCZC 2656 (♂).
misidentification: *pugionata* of Laporte & Gory 1837:99, not *pugionata* Germar 1824.
Taxonomy: Casey 1909; Nelson 1975b.
Redescription: Casey 1909:137; Nelson 1975b:141 (♂, ♀), figs. 56, 79 (♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 755 (♀).
Ecology: Nelson 1975b; Solomon 1995 (biol., distr.); Nelson, *et al*. 1981; Nelson & MacRae 1990 (distr.).
Distribution: **USA**: AL, AR, DC, IA, IN, KS, MD, MO, NM, NY, OK, PA, TX
Host(s): larva in *Crataegus coccinea* L. and *Ostrya virginiana* (Mill.) K. Koch.; adults also on *Quercus* sp.
levettei Casey 1909 [syn. of *lurida*]
limula Casey 1909 [syn. of *divaricata*]
longicauda Casey 1909 [syn. of *caudata*]
longipennis Casey 1909 [syn. of *tenebrica*]
lurida (Fabricius) 1775:217 (*Buprestis*).
Type locality: "Amer." – Type depository: BMNH.
synonym: *pruinosa* (Gory) 1841:109, plate 19, fig. 106 (adult) (*Buprestis*) – Synonymy: Nelson 1975b:152.
Type locality: LA, New Orleans – Type depository: MNHN.
synonym: *indistincta* Melsheimer 1845:143 – Synonymy: LeConte 1860:197.
Type locality: PA – Type depository: type lost (MCZC?).
synonym: *indurata* Casey 1909:131 – Synonymy: Nelson 1975b:153.
Type locality: TX – Type depository: USNM 35806 (♀).
synonym: *gracilis* Casey 1909:132 – Synonymy: Nelson 1975b:153.
Type locality: NH, Hampton – Type depository: USNM 35808 (♀).
synonym: *truncata* Casey 1909:132 – Synonymy: Nelson 1975b:153.
Type locality: WI – Type depository: USNM 35807 (♀).
synonym: *innocua* Casey 1909:133 – Synonymy: Nelson 1975b:153.
Type locality: FL, Marion Co. – Type depository: USNM 35811 (♀).
synonym: *porcatula* Casey 1909:133 – Synonymy: Nelson 1975b:153.
Type locality: KS – Type depository: USNM 35809 (♀) (Lectotype designation: Nelson 1985b:139).
synonym: *sagax* Casey 1909:133 – Synonymy: Nelson 1975b:153.
Type locality: IN – Type depository: USNM 35812 (♀).
synonym: *floridae* Casey 1909:134 – Synonymy: Nelson 1975b:153.
Type locality: FL – Type depository: USNM 35813 (♀) (Lectotype designation: Nelson 1985b:139).
synonym: *regularis* Casey 1909:134 (as subspecies of *soror*) – Synonymy: Nelson 1975b:153.
Type locality: NY, Buffalo – Type depository: USNM 35814 (♀).
synonym: *soror* Casey 1909:134, not LeConte.
synonym: *gaudens* Casey 1909:135 – Synonymy: Leng 1920:180.
Type locality: S IL – Type depository: USNM 35815 (♀).
synonym: *levettei* Casey 1909:135 – Synonymy: Leng 1920:180.
Type locality: N IL – Type depository: USNM 35816 (♀) (Lectotype designation: Nelson 1985b:139).
synonym: *erosa* Casey 1909:136 – Synonymy: Leng 1920:180.
Type locality: IA – Type depository: USNM 35810 (♀).
synonym: *seriata* Casey 1909:136 – Synonymy: Leng 1920:180.

Type locality: TX – Type depository: USNM 35817 (♀).
Taxonomy: Casey 1909; Nelson 1975b.
Redescription: Nelson 1975b:153 (♂, ♀), figs. 26, 61, 86 (parts, ♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 759 (♂).
Ecology: Knull 1920; 1930c; Nelson 1975b; 1987a; Nelson & MacRae 1990; Davies 1991 (distr.); Nelson, *et al*. 1996 (biol.); MacRae 2006 (biol., distr.).
Distribution: **Canada**: ON, PQ; **USA**: AL, AR, CT, DC, FL, GA, IA, IL, IN, KS, KY, LA, MA, MD, MI, MN, MO, MS, NC, NE, NH, NJ, NY, OH, OK, PA, SC, TN, TX, VA, VT, WI, WV
Host(s): larvae in *Alnus incana* (L.) Moench ssp. *rugosa* (DuRoi) Clausen, *Carpinus caroliniana* Walt., *Carya cordiformis* (Wangenh.) K. Koch, *C. glabra* (Mill.) Sweet, *C. laciniosa* (Michx. f.) G. Don, *Prunus caroliniana* (Mill.) Ait., *Salix exigua* Nutt. and *Tilia americana* L.; adults also on *Carya ovata* (Mill.) K. Koch, *Quercus alba* L., *Q. falcata* Michx. and *Q. velutina* Lam.

molitor Melsheimer 1845 [syn. of *aspirator*]

mutica LeConte 1860:196.
Type locality: NY, Brooklyn – Type depository: MCZC 2664 (♂).
synonym: *strandtmanni* Knull 1947b:174 – Synonymy: Nelson 1975b:155.
Type locality: TX – Type depository: FMNH (♀).
Taxonomy: Casey 1909; Nelson 1975b.
Redescription: Casey 1909:165; Nelson 1975b:155 (♂, ♀), figs. 21, 40, 62, 83 (parts, ♂ genitalia, adult).
Ecology: Nelson 1975b (distr.); Nelson, *et al*. 1981 (biol., distr.).
Distribution: **USA**: MD, MO, NY, TX
Host(s): adults on *Acer saccharum* Marsh.

nelsoni Beer 1974 [ssp. of *hornii*]

nigra Casey 1909 [syn. of *divaricata*]

obscura (Fabricius) 1781:274 (*Buprestis*).
Type locality: "Amer. Bor." – Type depository: UZMC.
synonym: *baltimorensis* (Herbst) 1801:99 (*Buprestis*) – Synonymy: LeConte 1857a:7.
Type locality: MD, Baltimore – Type depository: ZMHB.
synonym: *consimilis* (Laporte & Gory) 1837:104, plate 27, fig. 142 (adult) (*Buprestis*) – Synonymy: Leng 1920:180.
Type locality: "Amer. Bor." – Type depository: MNHN.
synonym: *soror* LeConte 1860:197 – Synonymy: Crotch 1873:85.
Type locality: PA – Type depository: MCZC 2655.
Taxonomy: Casey 1909; Nelson 1975b.
Redescription: Casey 1909:131; Nelson 1975b:150 (♂, ♀), figs. 25, 60, 85 (metacoxa, ♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 758 (♀).
Ecology: Burke 1917b; Knull 1920 (biol.); Nelson 1975b (biol., distr.); Nelson 1987a (distr.).
Distribution: **USA**: AL, AR, CT, DC, DE, FL, GA, IN, KY, LA, MA, MD, MO, MS, NC, NJ, NY, OH, OK, PA, SC, TN, TX, VA, WV
Host(s): larvae in *Diospyros virginiana* L. and *Rhus typhina* L.; adults also on *Carya* sp. and *Quercus* sp.

parumpunctata Melsheimer 1845 [syn. of *divaricata*]

pectorosa LeConte 1857b:45.
Type locality: OR – Type depository: MCZC 2663.
Taxonomy: Casey 1909; Nelson 1975b.
Redescription: Casey 1909:165; Nelson 1975b:119 (♂, ♀), figs. 49, 71 (♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 740 (♂, ♀).
Ecology: Chamberlin 1920b; 1925a (biol.); Nelson 1975b (biol., distr.); Davies 1991 (distr.); Westcott 1991.
Distribution: **Canada**: BC, SK; **USA**: CA, CO, ID, MT, NE, NV, OR, UT, WA
Host(s): larvae in *Prunus domestica* L.; adults also on *Ceanothus integerrimus* H. & A., *Chrysothamnus viscidiflorus* (Hook.) Nutt., *Prunus ilicifolia* (Nutt.) Walp., *P. persica* (L.) Batsch. and *P. virginiana* L. var. *demissa* (Nutt.) Torr.

pertinax Casey 1909 [syn. of *tenebrica*]

pisciformis Casey 1909 [syn. of *caudata*]

porcatula Casey 1909 [syn. of *lurida*]
prolongata LeConte 1860 [syn. of *tenebrica*]
pruinosa (Gory 1841) [syn. of *lurida*]
pugionata (Germar) 1824:37 (*Buprestis*).
Type locality: KY – Type depository: ZMHB.
Taxonomy: Casey 1909; Nelson 1975b.
Redescription: Casey 1909:138; Nelson 1975b:140 (♂, ♀), figs. 39, 55, 78 (antenna, ♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 754 (♂, ♀).
Ecology: Knull 1920; 1922 (biol.); Nelson 1975b; Nelson, *et al*. 1981; 1996; Davies 1991; Solomon 1995; Westcott 2001b (distr.); MacRae 2006 (biol., distr.).
Distribution: **Canada**: ON; **USA**: AR, CT, DC, DE, KY, MA, MD, MI, MO, NH, NJ, NY, OH, PA, VA, WV
Host(s): larvae in *Alnus incana* (L.) Moench, *A. serrulata* (Ait.) Willd., *Hamamelis virginiana* L. and *Physocarpus opulifolius* (L.) Maxim.
querci Knull 1941c:694 (♂, ♀), plate 1, fig. 3 (adult).
Type locality: CA, Santa Rosa Mtns., Pinyon Flat – Type depository: FMNH (♂).
Taxonomy: Nelson 1975b.
Redescription: Nelson 1975b:162 (♂, ♀), figs. 29, 63 (♂ mesotibia & genitalia); Nelson & Alten 1998:235 (♂, ♀), figs. 2, 4 (♂ & ♀ last abd. ventrite); Akiyama & Ohmomo 2000: fig. 761 (♂).
Ecology: Nelson 1975b (biol., distr.).
Distribution: **USA**: CA
Host(s): larvae in *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.).
regularis Casey 1909 [syn. of *lurida*]
rigida Casey 1909 [syn. of *callosa callosa*]
rustica Casey 1909 [syn. of *divaricata*]
sagax Casey 1909 [syn. of *lurida*]
seriata Casey 1909 [syn. of *lurida*]
severa Casey 1909 [syn. of *tenebrica*]
soror Casey 1909 [syn. of *lurida*]
spreta (Gory) 1841:108 (*Buprestis*), plate 19, fig. 105 (adult).
Type locality: "Amer. Bor." – Type depository: MNHN.
misidentification: *americana* of authors, not *americana* Melsheimer 1853.
misidentification: *asperata* of authors, not *asperata* Laporte & Gory 1837.
synonym: *impressifrons* Melsheimer 1845:144 – Synonymy: LeConte 1857a:8.
Type locality: PA – Type depository: type lost (MCZC?).
misidentification: *scobina* of authors, not *scobina* Chevrolat 1838.
Taxonomy: Casey 1909 (as *americana*); Nelson 1975b.
Redescription: Nelson 1975b:146 (♂, ♀), figs. 58, 80 (♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 757 (♀)
Ecology: Knull 1920 (biol. as *scobina*); Nelson 1975b (biol., distr.); 1987a; Davies 1991 (distr.).
Distribution: **USA**: AL, AR, DC, FL, GA, KY, LA, MD, MS, NC, OK, PA, SC, VA
Host(s): larvae in *Nyssa sylvatica* Marsh.
strandtmanni Knull 1947 [syn. of *mutica*]
subaequalis Casey 1909 [syn. of *divaricata*]
subargentea Casey 1909 [syn. of *tenebrica*]
subcuprea Casey 1909 [syn. of *tenebrica*]
sulcatula Casey 1909 [syn. of *tenebrica*]
tenebrica (Kirby) 1837:156 (*Buprestis*).
Type locality: No. Amer., Lat. 54° – Type depository: BMNH? (type lost).
misidentification: *divaricata* of authors, not *divaricata* Say 1823.
synonym: *prolongata* LeConte 1860:194 – Synonymy: Crotch 1873:84.
Type locality: Lake Superior – Type depository: MCZC 2653 (♂).
synonym: *subcuprea* Casey 1909:146 – Synonymy: Nelson 1975b:127.
Type locality: MI – Type depository: USNM 35831 (♀) (Lectotype designation: Nelson 1985b:137).
synonym: *pertinax* Casey 1909:147 (as subspecies of *subcuprea*) – Synonymy: Nelson 1985b:137.

Type locality: New Hampshire – Type depository: USNM 35831 (♂) (Neotype designation: Nelson 1985b:137).
synonym: *sulcatula* Casey 1909:147 – Synonymy: Nelson 1975b:127.
Type locality: CO – Type depository: USNM 35833 (♀).
synonym: *subargentea* Casey 1909:148 – Synonymy: Nelson 1975b:127.
Type locality: WI, Bayfield – Type depository: USNM 35836 (♀).
synonym: *longipennis* Casey 1909:149 (as subspecies of *prolongata*) – Synonymy: Nelson 1975b:127.
Type locality: "British America" – Type depository: USNM 35837 (♀) (Lectotype designation: Nelson 1985b:138).
synonym: *severa* Casey 1909:149 – Synonymy: Nelson 1975b:127.
Type locality: Canada: ON – Type depository: USNM 35838 (♀).
Immature stages: Burke 1917a: plate 4, fig. 1 (larva as *prolongata*).
Taxonomy: Casey 1909; Nelson 1975b.
Redescription: Nelson 1975b:127 (♂, ♀), figs. 30, 33, 51, 76 (parts, ♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 749 (♂).
Ecology: Nelson 1975b; Nelson, *et al.* 1981; 1996; Nelson & MacRae 1990; Davies 1991 (distr.); Solomon 1995 (biol., distr.).
Distribution: **Canada**: AB, BC, MB, NS, NT, ON, PQ, SK, YT; **USA**: AK, AZ, CA, CO, CT, GA, IA, ID, IL, IN, MD, ME, MI, MN, MO, MT, ND, NE, NH, NM, NV, NY, OH, OR, PA, RI, SD, TX, UT, VA, VT, WA, WI, WY
Host(s): larvae in *Populus grandidentata* Michx.; adults also on *P. angustifolia* James, *P. balsamifera* (L.) ssp. *trichocarpa* (T. & G.) Brayshaw and *P. tremuloides* Michx.

tetrica Casey 1909 [syn. of *callosa callosa*]
truncata Casey 1909 [syn. of *lurida*]
vancouveri Casey 1909 [syn. of *divaricata*]

subgenus *Dicerca* (*Neoargante*) Nelson 2006
Dicerca (*Neoargante*) Nelson 2006:272.
Type species: *Buprestis moesta* Fabricius 1793 (fixed by original designation).

acerba Casey 1909 [syn. of *tenebrosa tenebrosa*]
austera Casey 1909 [syn. of *lugubris*]
bifoveata LeConte 1860 [syn. of *tenebrosa tenebrosa*]
californica Crotch 1873 [syn. of *crassicollis*]
chrysea Melsheimer 1845 [syn. of *tenebrosa tenebrosa*]
consobrina Melsheimer 1845 [syn. of *dumolini*]
crassicollis LeConte 1857b:45.
Type locality: WA, Steilacoon – Type depository: MCZC 2658 (♀).
synonym: *californica* Crotch 1873:87 – Synonymy: Leng 1920:180.
Type locality: CA – Type depository: MCZC 5075 (♂).
synonym: *hesperica* Casey 1909:155 (as subspecies of *crassicollis*) – Synonymy: Casey 1914:355.
Type locality: WA – Type depository: USNM 35844 (♀).
Taxonomy: Casey 1909; 1914; Nelson 1975b.
Redescription: Casey 1909:154; Nelson 1975b:106 (♂, ♀), figs. 43, 65 (♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 737 (♀).
Ecology: Nelson 1975b (biol., distr.); Bright 1987; Davies 1991 (distr.).
Distribution: **Canada**: AB, BC; **USA**: CA, OR, ID, WA
Host(s): adults on *Abies magnifica* A. Murr., *Pinus ponderosa* Laws. and *Pseudotsuga menziesii* (Mirb.) Franco.
distinguenda (Laporte & Gory 1837) [syn. of *tenebrosa tenebrosa*]
dumolini (Laporte & Gory) 1837:98 (*Buprestis*), plate 25, fig. 133 (adult).
Type locality: "Senegal" (error) – Type depository: MNHN.
synonym: *consobrina* Melsheimer 1845:145 – Synonymy: Leng 1920:180.
Type locality: VA – Type depository: type lost (MCZC?).
Taxonomy: Casey 1909; Nelson 1975b.
Redescription: Casey 1909:157; Nelson 1975b:115 (♂, ♀), figs. 47, 67 (♂ genitalia, adult).

Ecology: Nelson 1975b (biol., distr.); Nelson, *et al*. 1981; Davies 1991 (distr.).
Distribution: **Canada**: PQ; **USA**: CT, ME, NJ, NY, PA, VA
Host(s): adults on *Abies balsamea* (L.) Mill., *Picea* sp. and *Pinus* sp.

hesperica Casey 1909 [syn. of *crassicollis*]
hilaris LeConte 1860 [syn. of *tuberculata*]
knulli Nelson 1975 [ssp. of *tenebrosa*]
lacustris LeConte 1860 [syn. of *lugubris*]
lugubris LeConte 1860:200.
Type locality: MI, Lake Superior, Marquette – Type depository: MCZC 2661 (♂).
synonym: *lacustris* LeConte 1860:202 – Synonymy: Crotch 1873:86.
Type locality: MI, Lake Superior, Point Kewenaw – Type depository: MCZC 2662 (♀).
synonym: *morio* Casey 1909:155 – Synonymy: Nelson 1975b:111.
Type locality: MI, Lake Superior, Whitefish Point – Type depository: USNM 35846 (♂).
synonym: *austera* Casey 1909:157 – Synonymy: Nelson 1975b:111.
Type locality: MI, Lake Superior, Whitefish Point – Type depository: USNM 35845 (♂).
Taxonomy: Casey 1909; Nelson 1975b.
Redescription: Casey 1909:156; Nelson 1975b:111 (♂, ♀), figs. 45, 69 (♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 741 (♂).
Ecology: Nelson 1975b (biol., distr.); Bright 1987; Davies 1991 (distr.).
Distribution: **Canada**: MB, NT, ON, PQ, SK; **USA**: IA, MI, MN, NB, WI
Host(s): adults on *Pinus banksiana* Lamb.

manca LeConte 1860 [syn. of *tuberculata*]
montana Casey 1909 [syn. of *tenebrosa tenebrosa*]
morio Casey 1909 [syn. of *lugubris*]
mystica Casey 1909 [syn. of *tenebrosa tenebrosa*]
pinorum Casey 1909 [syn. of *punctulata*]
punctulata (Schönherr) 1817:123 (*Buprestis*).
Type locality: GA – Type depository: NHRS (♀).
synonym: *transversa* (Say) 1825:249 (*Buprestis*) – Synonymy: LeConte 1857a:7.
Type locality: none stated – Type depository: type destroyed.
synonym: *pinorum* Casey 1909:154 (as subspecies of *punctulata*) – Synonymy: Leng 1920:180.
Type locality: NC, Southern Pines – Type depository: USNM 35843 (♂).
Taxonomy: Casey 1909; Nelson 1975b.
Redescription: Casey 1909:154; Nelson 1975b:113 (♂, ♀), figs. 46, 68 (♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 733 (♀ as *punctata*).
Ecology: Knull 1920 (biol.); Nelson 1975b (biol., distr.); Nelson 1987a; Davies 1991; MacRae & Nelson 2003 (distr.); Westcott 2005 (distr.).
Distribution: **Canada**: ON, PQ; **USA**: AL, CT, DC, DE, FL, GA, IA, IN, LA, MA, MD, MI, MS, MO, NC, NH, NJ, NY, OH, OK, PA, RI, SC, TX, VA, WI, WV
Host(s): larvae in *Pinus echinata* Mill., *P. rigida* Mill., *P. strobus* L. and *P. taeda* L.

scobina Chevrolat 1838 [syn. of *tuberculata*]
sexualis Crotch 1873:87.
Type locality: OR – Type depository: MCZC 5076 (♀).
Taxonomy: Nelson 1975b.
Redescription: Nelson 1975b:108 (♂, ♀), figs. 22, 28, 44, 66 (parts, ♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 738 (♂, ♀).
Ecology: Nelson 1975b (biol., distr.); Davies 1991 (distr.); Westcott 2005 (distr.).
Distribution: **Canada**: BC; **USA**: CA, ID, MT, NV, OR, WA
Host(s): larvae in *Pseudotsuga menziesii* (Mirb.) Franco; adults also on *Pinus attenuata* Lemmon and *P. jeffreyi* Grev. & Balf.

stolida Casey 1909 [syn. of *tenebrosa tenebrosa*]
tenebrosa knulli Nelson 1975b:105 (♂, ♀), fig. 24 (elytra apex).
Type locality: VA, New Kent Co. – Type depository: USNM 72511 (♂).
Taxonomy: Nelson 1975b.
Ecology: Howden & Vogt 1951 (biol. as *tenebrosa*); Nelson 1975b (biol., distr.); Westcott 2006 (distr.).
Distribution: **USA**: FL, GA, MD, NC, VA, WV

Host(s): adults on *Pinus echinata* Mill. and *P. virginiana* Mill.

tenebrosa tenebrosa (Kirby) 1837:155 (*Buprestis*).
Type locality: No. Amer., Lat. 65° – Type depository: BMNH.
synonym: *distinguenda* (Laporte & Gory) 1837:100, plate 26, fig. 137 (adult) (*Buprestis*) – Synonymy: Leng 1920:180.
Type locality: "Brésil interior" (error) – Type depository: MNHN.
synonym: *chrysea* Melsheimer 1845:143 – Synonymy: Nelson 1975b:103.
Type locality: PA – Type depository: lost (MCZC?).
synonym: *bifoveata* LeConte 1860:202 – Synonymy: Nelson 1975b:103.
Type locality: Lake Superior – Type depository: MCZC 2657 (♀).
synonym: *acerba* Casey 1909:158 – Synonymy: Nelson 1975b:103.
Type locality: Canada: ON, Sudbury – Type depository: USNM 35848 (♀).
synonym: *montana* Casey 1909:159 – Synonymy: Nelson 1975b:103.
Type locality: MT – Type depository: USNM 35849 (♀) (Lectotype designation: Nelson 1985b:139).
synonym: *mystica* Casey 1909:159 (as subspecies of *bifoveata*) – Synonymy: Nelson 1975b:103.
Type locality: MI – Type depository: USNM 35847 (♀).
synonym: *stolida* Casey 1909:160 – Synonymy: Nelson 1975b:103.
Type locality: CO – Type depository: USNM 35851 (♀).
synonym: *wickhami* Casey 1909:160 – Synonymy: Nelson 1975b:103.
Type locality: WI, Bayfield – Type depository: USNM 35840 (♀).
Taxonomy: Casey 1909; Nelson 1975b.
Redescription: Nelson 1975b:103 (♂, ♀), figs. 19, 31, 36, 42, 64 (parts, ♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 736 (♂, ♀).
Ecology: Nelson 1975b (biol., distr.); Nelson, *et al.* 1981; Bright 1987; Davies 1991 (distr.).
Distribution: **Canada**: AB, BC, MB, NB, NS, NT, ON, PE, PQ, SK, YT; **USA**: AK, AZ, CA, CO, CT, ID, ME, MI, MN, MT, NE, NH, NM, NY, OR, PA, SD, UT, VT, WA, WI, WY
Host(s): adults on *Abies balsamea* (L.) Mill., *A. concolor* (Gord. & Glend.) Lindl., *Picea glauca* (Moench) Voss, *Pinus banksiana* Lamb., *P. contorta* Loud., *P. flexilis* James, *P. ponderosa* Laws., *P. resinosa* Ait., *P. scopulorum* Engelm. and *Pseudotsuga menziesii* (Mirb.) Franco.

transversa (Say 1825) [syn. of *punctulata*]

tuberculata (Laporte & Gory) 1837:99, plate 25, fig. 135 (adult) (*Buprestis*).
Type locality: "Amer. Bor." – Type depository: MNHN.
synonym: *scobina* Chevrolat 1838:66 – Synonymy: Nelson 1975b:117.
Type locality: MA, Boston – Type depository: BMNH.
synonym: *hilaris* LeConte 1860:200 – Synonymy: LeConte 1873:331.
Type locality: NY, Brooklyn – Type depository: MCZC 2659 (♀).
synonym: *manca* LeConte 1860:201 – Synonymy: LeConte 1873:331.
Type locality: NY – Type depository: MCZC 2660 (♀).
Taxonomy: Casey 1909; Nelson 1975b.
Redescription: Casey 1909:158; Nelson 1975b:117 (♂, ♀), figs. 48, 70 (♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 739 (♀).
Ecology: Knull 1922 (biol.); Nelson 1975b (biol., distr.); Davies 1991 (distr.).
Distribution: **Canada**: NB, NS, ON, PQ; **USA**: CT, MA, ME, MI, NC, NH, NY, PA, VA
Host(s): larvae in *Tsuga canadensis* (L.) Carr.; adults also on *Abies balsamae* (L.) Mill., *Larix laricina* (DuRoi) K. Koch., *Picea glauca* (Moench) Voss, *Pinus banksiana* Lamb. and *Thuja occidentalis* L.

wickhami Casey 1909 [syn. of *tenebrosa tenebrosa*]

Subfamily Buprestinae Leach 1815

Bupresti Leach 1815:85.
Buprestides vrais (Group I) Lacordaire 1857.
Buprestes LeConte 1861.
Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1903; Arnett 1962; Nelson 1982; Bellamy 1985; Hołyński 1993; Bílý 1999a; Kolíbác 2001; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.
Key(s): Kerremans 1893:107; 1903:124; Arnett 1962:483 (genera); Nelson 1982:432 (tribes); Downie & Arnett 1996:740 (NE No. Amer. genera); Bellamy & Nelson 2002:102 (tribes & genera).

Tribe Buprestini Leach 1815
Bupresti Leach 1815:85.
Type genus: *Buprestis* Linnaeus 1758.
Buprestides Leach 1815.
Buprestides vrais Lacordaire 1857 (part).
Buprestites LeConte 1861 (part).
Buprestes Kerremans 1893 (part).
Ancylochirina Jakobson 1913.
Type genus: *Ancychlocheria* Eschscholtz 1829.
Ancylocheirini Richter 1952.
Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1903; Arnett 1962; Nelson 1982; Bellamy 1985; Hołyński 1993; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.
Key(s): Kerremans 1893:108; 1903:138; Arnett 1962:483; Bellamy & Nelson 2002:103 (genera).

Subtribe Trachykelina Hołyński **1988**
Trachykelina Hołyński 1988:51.
Type genus: *Trachykele* Marseul 1865.
Classification: Hołyński 1988; 1993; Bellamy & Nelson 2002; Bellamy 2003a.

Genus *Trachykele* Marseul 1865
Trachykele Marseul 1865:149.
Type species: *Trachykele blondeli* Marseul 1865 (fixed by monotypy).
Immature stages: Burke 1917a: plate 4, fig. 2 (larva).
Taxonomy: Cobos 1974b; Nelson 1981; Hołyński 1993; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Ecology: Burke 1917b (biol., distr.).
Key(s): Fall 1906:165; Barr 1971:57 (Pacific NW).

blondeli blondeli Marseul 1865:150.
Type locality: Liban (error) – Type depository: MNHN (♀).
Immature stages: Burke 1928: figs. 3, 5–8 (life cycle, larva); Hopping 1928: plate 2 (egg, larva, pupa).
Redescription: Burke 1928 (♂, ♀); Hopping 1928: plate 1 (adult); Barr 1971: plate 6, fig. 3 (adult); Akiyama & Ohmomo 2000: fig. 789–1 (♂).
Ecology: Burke 1917b; 1920a; 1928; Hopping 1928; Beer 1970; Westcott 1991 (biol., distr.); Davies 1991 (distr.).
Distribution: **Canada**: BC; **USA**: AZ, CA, NM, OR, WA; also recorded from Mexico.
Host(s): larvae in *Calocedrus decurrens* (Torr.) Florin, *Chamaecyparis lawsoniana* (A. Murr.) Parl., *Cupressus arizonica* Greene, *C. macnabiana* A. Murr., *C. macrocarpa* Gord., *C. sargentii* Jeps. and *Thuja plicata* D. Don.
blondeli cupreomarginata Helfer 1953b:176 (♂, ♀).
Type locality: CA, Marin Co., Cypress Ridge – Type depository: CASC 8115 (♂).
Taxonomy: Helfer 1953b.
Redescription: Helfer 1970:96 fig. (adult); Akiyama & Ohmomo 2000: fig. 789–2 (♂).
Ecology: Helfer 1970; Nelson, *et al.* 1981 (biol.).
Distribution: **USA**: CA
Host(s): larvae in *Cupressus goveniana* Gord. ssp. *pygmaea* (Lemmon) J. Bartel, *C. macrocarpa* Gord. and *C. sargentii* Jeps.
blondeli juniperi Burke 1928:8 (♂, ♀).
Type locality: CA, Eldorado Co., Strawberry, Pyramid Ranger Sta. – Type depository: USNM 29072 (♀).
Immature stages: Burke 1928:9 (larva).
Distribution: **USA**: CA
Host(s): larvae in *Juniperus occidentalis* Hook.
cupreomarginata Helfer 1953 [ssp. of *blondeli*]
fattigi Knull 1954:294, fig. 2 (adult).
Type locality: GA, Stone Mtn. – Type depository: FMNH (♀).

Redescription: Beer 1974 (♂).
Distribution: **USA**: GA
Host(s): larvae in *Juniperus virginiana* L.

hartmani Burke 1920b:169 (♂, ♀).
Type locality: CA, Lake Co., Mtn. St. Helena – Type depository: USNM 22804 (♀).
Distribution: **USA**: CA
Host(s): larvae in *Cupressus sargentii* Jeps.

juniperi Burke 1928 [ssp. of *blondeli*]

lecontei (Gory) 1841:107, plate 18, fig. 104 (adult) (*Buprestis*).
Type locality: "Amer. Bor." – Type depository: MNHN.
Immature stages: Burke 1917a: plate 4, fig. 2 (larva).
Redescription: Akiyama & Ohmomo 2000: fig. 793 (♂, ♀).
Ecology: Burke 1917b; 1920a; Knull 1964 (biol., distr.).
Distribution: **USA**: AL, GA, LA, MS, NC, SC, TX, VA
Host(s): larvae in *Taxodium distichum* Rich.

nimbosa Fall 1906:164.
Type locality: CA, Tulare Co., Marble Bridge, 5200' – Type depository: MCZC 24435 (♀).
Redescription: Bright 1987, fig. 126 (adult); Akiyama & Ohmomo 2000: fig. 792 (♂, ♀).
Ecology: Burke 1917b; 1920a; Barr 1971 (biol., distr.); Davies 1991 (distr.).
Distribution: **Canada**: BC; **USA**: CA, ID, OR, WA
Host(s): larvae in *Abies concolor* (Gord. & Glend.) Lindl., *A. grandis* (Dougl.) Lindl., *A. magnifica* A. Murr. and *Tsuga mertensiana* (Bong.) Carr.

opulenta Fall 1906:162.
Type locality: CA, Tulare Co., Giant Forest Region – Type depository: MCZC 24436 (♂).
Immature stages: Burke 1928: fig. 9 (pupa).
Redescription: Good 1925: plate 8 (wing); Akiyama & Ohmomo 2000: fig. 790 (♂).
Ecology: Burke 1917b; 1920a (biol., distr.); Van Duzee 1923 (biol.); Nelson, *et al.* 1981 (distr.).
Distribution: **USA**: CA, OR
Host(s): larvae in *Calocedrus decurrens* (Torr.) Florin and *Sequoiadendron giganteum* (Lindl.) Buchh.

Subtribe Buprestina Leach 1815

Bupresti Leach 1815:85.
Buprestes: LeConte & Horn 1883.
Ancylochirina Jakobson 1991.
Type genus *Ancylochira* Eschscholtz 1829.

Genus *Buprestis* Linnaeus 1758

Buprestis Linnaeus 1758:408.
Type species *Buprestis octoguttata* Linnaeus 1758 (fixed by subsequent designation: Opinion 1784, ICZN 1994:280).
Buprestis (*Anoplis*) Kirby 1837:151 – Synonymy: Kerremans 1903:140.
Type species: *Buprestis rustica* Linnaeus 1758 (fixed by original designation).
Immature stages: Burke 1917a (larvae); Rees 1941 (first instar larva).
Taxonomy: Casey 1909; Burke 1917a; Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Redescription: Nicolay & Weiss 1918:80; Helfer 1941:124; Bright 1987:94; Kurosawa 1988:268.
Ecology: Nicolay & Weiss 1918 (life cycle); Helfer 1941 (biol., distr.).
Key(s): Helfer 1941:131 (No. Amer.); Barr 1971:61 (Pacific NW); Wellso, *et al.* 1976:8 (MI); MacRae 1991:109 (MO).

subgenus *Buprestis* (*Buprestis*) Linnaeus 1758

Buprestis Linnaeus 1758:408.
Type species *Buprestis octoguttata* Linnaeus 1758.

acomana Casey 1909 [syn. of *lyrata*]
adducta Casey 1909 [syn. of *lyrata*]

adonea Casey 1909 [syn. of *subornata*]
alternans (LeConte 1860) [syn. of *nutalli*]
boulderensis Casey 1909 [syn. of *nutalli*]
caliginosa Casey 1909 [syn. of *lyrata*]
conicicauda Casey 1909 [syn. of *nutalli*]
consularis Gory 1840:120, plate 21, fig. 118 (adult).
Type locality: "Amer. Bor." – Type depository: MNHN (♀) (Lectotype not designated).
synonym: *flavopicta* Casey 1909:96 – Synonymy: Casey 1914:355.
Type locality: WI, Lake Superior, Bayfield – Type depository: USNM 35757 (♂) (Lectotype designation: Bellamy & Nelson 1990:292).
Taxonomy: Casey 1914; Knull 1947b; Bellamy & Nelson 2002.
Redescription: Knull 1947b: figs. 3, 4 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 908 (♂, ♀).
Ecology: Burke 1918b; Howden & Vogt 1951 (biol.); Nelson & Westcott 1976; Nelson, *et al.* 1981; Peck & Thomas 1998 (distr.); Wellso & Jackman 2006 (distr. & biol.).
Distribution: **Canada**: ON, PQ; **USA**: AL, AZ, CO, FL, MA, MD, ME, MI, MN, MS, NE, NJ, NM, NY, SC, SD, TX, VA, WI, WV
Host(s): larvae in *Picea glauca* (Moench) Voss., *Pinus resinosa* Ait., *P. rigida* Mill., *P. taeda* L. and *P. virginiana* Mill.
contorta Casey 1909 [syn. of *nutalli*]
davisi Nicolay & Weiss 1918 [syn. of *lineata*]
deficiens Casey 1909 [syn. of *maculipennis*]
diruptans Casey 1909 [syn. of *nutalli*]
flavopicta Casey 1909 [syn. of *consularis*]
fusca Casey 1909 [syn. of *lyrata*]
gravidula Casey 1909 [syn. of *nutalli*]
fusiformis Casey 1909 [syn. of *maculipennis*]
histrio Casey 1909 [syn. of *subornata*]
inconstans Melsheimer 1845 [syn. of *maculipennis*]
laeviventris (LeConte) 1857b:43 (*Ancylochira*).
Type locality: northern CA – Type depository: MCZC 2668.
synonym: *pugetana* Casey 1909:94 (as subspecies) – Synonymy: Nicolay & Weiss 1918:98.
Type locality: WA – Type depository: USNM 35751 (♀).
Immature stages: Burke 1917a: plate 2, fig. (larva).
Taxonomy: Nicolay & Weiss 1918; Helfer 1941 (as subspecies of *nutalli*).
Redescription: Helfer 1941:171 (♂, ♀), plate 7, fig. 4 (adult); Akiyama & Ohmomo 2000: fig. 909 (♂, ♀).
Ecology: Chamberlin 1917; Burke 1918b; Helfer 1941(biol.); Davis 1991; Westcott 2001b (distr.); 2005 (distr.).
Distribution: **Canada**: BC; **USA**: AZ, CA, ID, MT, NM, OR, SD, UT, WA
Host(s): larvae in *Pinus contorta* Loud. var. *murrayana* (Grev. & Balf.) Critchf., *P. lambertiana* Dougl., *P. ponderosa* Laws., *P. radiata* D. Don, *P. sabiniana* Dougl. and *Pseudotsuga menziesii* (Mirb.) Franco.
lecontei Saunders 1871 [syn. of *lyrata*]
leporina Casey 1909 [syn. of *maculipennis*]
lineata Fabricius 1775:217.
Type locality: "Amer." – Type depository: BMNH, UZMC (Lectotype not designated).
synonym: *davisi* Nicolay & Weiss 1918:95 (as variety of *lineata*) – Synonymy: Helfer 1941:157.
Type locality: FL, Big Pine Key – Type depository: USNM (♂).
Taxonomy: Nicolay & Weiss 1918; Helfer 1941.
Redescription: Nicolay & Weiss 1918: plate 5 (elytra); Helfer 1941:157 (♂, ♀), plate 4 (♂ genitalia), plate 7 (adult).
Ecology: Burke 1918b; Knull 1922; 1932; Helfer 1941 (biol., distr.); Howden & Vogt 1951 (biol.); Nelson, *et al.* 1981; Nelson 1987a; Davis 1991; Dearborn & Donahue 1993 (distr.).
Distribution: **Canada**: NS, ON, PQ; **USA**: AL, AR, DC, DE, FL, GA, IN, LA, MA, MD, ME, MS, NC, NH, NJ, NY, OK, PA, RI, SC, TN, TX, VA, WV; also recorded from the West Indies.
Host(s): larvae in *Pinus echinata* Mill., *P. palustris* Mill., *P. rigida* Mill., *P. strobus* L., *P. sylvestris* L., *P. taeda* L. and *P. virginiana* Mill.

lyrata Casey 1909:103.
Type locality: BC, Golden – Type depository: USNM 35770 (♂) (Lectotype not designated).
misidentification: *rusticorum* of Gory 1841, not *rusticorum* Kirby 1837.
synonym: *lecontei* Saunders 1871:40 (unjustified new name for *rusticorum*) *sensu* Gory 1840, of authors, not *rusticorum* Kirby 1837.
synonym: *acomana* Casey 1909:100 – Synonymy: Nicolay & Weiss 1918:91.
Type locality: NM, Cloudcroft – Type depository: USNM 35764 (♂).
synonym: *fusca* Casey 1909:101 – Synonymy: Nicolay & Weiss 1918:91.
Type locality: CO – Type depository: USNM 35766 (♀) (Lectotype designation: Bellamy & Nelson 1990:292).
synonym: *morosa* Casey 1909:101 – Synonymy: Nicolay & Weiss 1918:91.
Type locality: KS (?) – Type depository: USNM 35765 (♀).
synonym: *caliginosa* Casey 1909:102 – Synonymy: Nicolay & Weiss 1918:91.
Type locality: CO, Boulder Co. – Type depository: USNM 35768 (♂) (Lectotype designation: Bellamy & Nelson 1990:292).
synonym: *nigricans* Casey 1909:102 – Synonymy: Nicolay & Weiss 1918:91.
Type locality: MT – Type depository: USNM 35769 (♀).
synonym: *sublivida* Casey 1909:102 (as subspecies of *fusca*) – Synonymy: Nicolay & Weiss 1918:91.
Type locality: MT – Type depository: USNM 35767 (♀).
synonym: *adducta* Casey 1909:103 – Synonymy: Nicolay & Weiss 1918:91.
Type locality: OR – Type depository: USNM 35771 (♀) (Lectotype designation: Bellamy & Nelson 1990:291).
synonym: *unicus* Miwa & Chûjô 1935:272, fig. 18 – Synonymy: Kurosawa 1989:189.
Type locality: Japan, Hyôgo Pref., Akashi – Type depository: TARI (♂).
Immature stages: Rees 1941:210, plate 22 (first instar larva as *rusticorum*).
Taxonomy: Nicolay & Weiss 1918; Helfer 1941 (as *rusticorum*); Barr 1972c; Bright 1987.
Redescription: Helfer 1941:165 (♂, ♀), plate 4, fig. 5 (♂ genitalia), plate 8, fig. 2 (adult) (as *rusticorum*); Bright 1987; Akiyama & Ohmomo 2000: fig. 901 (♂, ♀).
Ecology: Chamberlin 1917; Burke 1918b; Helfer 1941 (distr. & biol. all as *rusticorum*); Bright 1987; Davies 1991 (distr.).
Distribution: **Canada**: BC, MB, SK **USA**: AZ, CA, CO, ID, KS, MT, NM, NV, OR, SD, TX, UT, WA
Host(s): larvae in *Abies grandis* (Dougl.) Lindl., *Pinus ponderosa* Laws. and *Pseudotsuga menziesii* (Mirb.) Franco.

maculativentris Say 1824:272.
Type locality: Canada, Northwest Territory – Type depository: type destroyed.
synonym: *paganorum* Kirby 1837:152 – Synonymy: Barr 1972c:343.
Type locality: Canada: SK, Cumberland–house, Lat. 54° – Type depository: BMNH?
misidentification: *maura* of Laporte & Gory 1837, not *maura* Olivier 1790.
synonym: *rusticorum* Kirby 1837:151 – Synonymy: Barr 1972c:343.
Type locality: Lat. 54° – Type depository: BMNH.
synonym: *sexnotata* Laporte & Gory 1837:129, plate 32, fig. 178 (adult) – Synonymy: LeConte 1860:208.
Type locality: "Amer. Bor." – Type depository: MNHN (♀).
misspelling: *maculiventris* Gemminger & Harold 1869 (*maculiventris* [sic!], subsequent incorrect spelling, unavailable name).
Taxonomy: Nicolay & Weiss 1918; Helfer 1941.
Redescription: Helfer 1941:161 (♂, ♀), plate 4, fig. 3 (♂ genitalia), plate 7, fig. 6 (adult); Akiyama & Ohmomo 2000: fig.896 (♂, ♀).
Ecology: Helfer 1941; Bright 1987 (biol., distr.); Nelson & Westcott 1976; Nelson, *et al*. 1981; Davies 1991 (distr.); Westcott 1991; 2001b.
Distribution: **Canada**: AB, BC, MB, NF, NS, NT, ON, PQ, SK; **USA**: CO, IN, MA, ME, MI, MN, MT, NE, NH, NM, NY, PA, SD, VT, WI, WY; also recorded from the West Indies.
Host(s): larvae in *Abies fraseri* (Pursh) Poir., *Picea* sp., *Pinus echinata* Mill., *P. resinosus* Ait. and *P. strobus* L.

maculipennis Gory 1840:118, plate 21, fig. 117 (adult).
Type locality: "Amer. Bor." – Type depository: MNHN (♀) (Lectotype not designated).

synonym: *inconstans* Melsheimer 1845:146 – Synonymy: Kerremans 1892:96.
Type locality: PA – Type depository: MCZC (♂).
synonym: *deficiens* Casey 1909:90 (as subspecies of *maculipennis*) – Synonymy: Casey 1914:355.
Type locality: NC, Southern Pines – Type depository: USNM 35745 (♀) (Lectotype designation: Bellamy & Nelson 1990:293).
synonym: *fusiformis* Casey 1909:91 (as subspecies of *maculipennis*) – Synonymy: Nicolay & Weiss 1918:93.
Type locality: VA, Cape Henry – Type depository: USNM 35747 (♀).
synonym: *scripta* Casey 1909:91 (as ssp. of *inconstans*) – Synonymy: Nicolay & Weiss 1918:93.
Type locality: MI – Type depository: USNM 35749 (♀) (Lectotype not designated).
synonym: *leporina* Casey 1909:92 – Synonymy: Nicolay & Weiss 1918:93.
Type locality: MI – Type depository: USNM 35748 (♀) (Lectotype designation: Bellamy & Nelson 1990:292).
synonym: *reducta* Casey 1909:92 – Synonymy: Nicolay & Weiss 1918:93.
Type locality: NY, Adirondack Mtns. – Type depository: USNM 35746 (♀).
Taxonomy: Casey 1914; Nicolay & Weiss 1918; Helfer 1941.
Redescription: Nicolay & Weiss 1918 (elytral variation); Helfer 1941:159 (♂, ♀), plate 4 (♂ genitalia), plate 7 (adult); Akiyama & Ohmomo 2000: fig. 913 (♂, ♀).
Ecology: Knull 1922; Howden & Vogt 1951 (biol.); Nelson, *et al.* 1981; Bright 1987; Davies 1991 (distr.); Westcott 1991; MacRae 2006 (biol., distr.).
Distribution: **Canada**: MB, ON, PQ, SK; **USA**: AL, FL, GA, IN, LA, MA, ME MI, MO, MS, NC, NH, NJ, NY, PA, SC, TX, VA, WI, WV
Host(s): larvae in *Pinus virginiana* Mill., *Taxodium distichum* (L.) Rich. and *Tsuga canadensis* (L.) Carr.

morosa Casey 1909 [syn. of *lyrata*]

nigricans Casey 1909 [syn. of *lyrata*]

nutalli Kirby 1837:152.
Type locality: Lat 65° & on the Rocky Mtns. – Type depository: BMNH.
synonym: *alternans* (LeConte) 1860:207 (*Ancylochira*) – Synonymy: Kerremans 1892:97.
Type locality: NM, Santa Fe – Type depository: MCZC 2667 (♀).
synonym: *conicicauda* Casey 1909:93 (as subspecies of *alternans*) – Synonymy: Nicolay & Weiss 1918:106.
Type locality: AZ, Walnut – Type depository: USNM 35750 (♀).
synonym: *contorta* Casey 1909:94 – Synonymy: Nicolay & Weiss 1918:106.
Type locality: WA, Tacoma – Type depository: USNM 35753 (♂).
synonym: *diruptans* Casey 1909:94 – Synonymy: Nicolay & Weiss 1918:106.
Type locality: NM – Type depository: USNM 35752 (♂) (Lectotype designation: Bellamy & Nelson 1990:292).
synonym: *gravidula* Casey 1909:95 – Synonymy: Nicolay & Weiss 1918:106.
Type locality: CA – Type depository: USNM 35755 (♂).
synonym: *torva* Casey 1909:95 (as subspecies of *gravidula*) – Synonymy: Nicolay & Weiss 1918:106.
Type locality: WA – Type depository: USNM 35754 (♂).
synonym: *boulderensis* Casey 1909:96 (as subspecies of *gravidula*) – Synonymy: Nicolay & Weiss 1918:106.
Type locality: CO, Boulder Co. – Type depository: USNM 35756 (♀) (Lectotype designation: Bellamy & Nelson 1990:292).
Taxonomy: Nicolay & Weiss 1918; Helfer 1941.
Redescription: Knull 1947b: figs. 1, 2 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 907 (♂, ♀).
Ecology: Helfer 1941 (in part); Dearborn & Donahue 1993; MacRae 2006 (biol., distr.).
Distribution: **Canada**: AB, BC, NT, YT; **USA**: AK, AZ, CA, CO, ID, ME, MT, NM, OR, SD, TX, UT, WA, WY
Host(s): larvae in *Pinus cembroides* Zucc., *P. ponderosa* Laws. and *Pseudotsuga menziesii* (Mirb.) Franco.; adults also on *Pinus strobus* L.

paganorum Kirby 1837 [syn. of *maculativentris*]

parmaculativentris Knull 1958b:154, figs. 3–4 (♂ genitalia).
Type locality: TX, Chisos Mtns. – Type depository: FMNH (♂).

Taxonomy: Knull 1958b.
Redescription: Nelson 1980a:87 (♀), figs. 4, 5 (♂ & ♀ last abd. ventrite); Akiyama & Ohmomo 2000: fig. 902 (♂, ♀).
Ecology: Nelson 1980a; MacRae & Nelson 2003 (biol.)
Distribution: **USA**: TX
Host(s): larvae in *Pinus cembroides* Zucc.

pugetana Casey 1909 [syn. of *laeviventris*]
punctiventris Casey 1909 [syn. of *subornata*]
reducta Casey 1909 [syn. of *maculipennis*]
rubronotans Casey 1909 [syn. of *subornata*]
rusticorum Kirby 1837 [syn. of *maculativentris*]
scripta Casey 1909 [syn. of *maculipennis*]
sexnotata Laporte & Gory 1837 [syn. of *maculativentris*]
sublivida Casey 1909 [syn. of *lyrata*]

subornata (LeConte) 1860:208 (*Ancylochira*).
Type locality: NM – Type depository: MCZC 2669 (Lectotype not designated).
synonym: *adonea* Casey 1909:97 – Synonymy: Nicolay & Weiss 1918:92.
Type locality: MT – Type depository: USNM 35760 (♀).
synonym: *rubronotans* Casey 1909:97 – Synonymy: Nicolay & Weiss 1918:92.
Type locality: CO (?) – Type depository: USNM 35768 (♀).
synonym: *histrio* Casey 1909:98 – Synonymy: Nicolay & Weiss 1918:92.
Type locality: UT, Stockton – Type depository: USNM 35761 (♀).
synonym: *punctiventris* Casey 1909:99 (as subspecies of *subornata*) – Synonymy: Casey 1914:355.
Type locality: CO, Boulder Co. – Type depository: USNM 35762 (♀).
synonym: *violescens* Casey 1909:99 – Synonymy: Nicolay & Weiss 1918:92.
Type locality: KS – Type depository: USNM 35763 (♀).
Taxonomy: Casey 1914; Nicolay & Weiss 1918; Helfer 1941.
Redescription: Helfer 1941:163 (♂, ♀), plate 4, fig. 4 (♂ genitalia), plate 8, fig.1 (adult); Akiyama & Ohmomo 2000: fig. 903 (♂, ♀).
Ecology: Burke 1918b; Helfer 1941; Nelson & Westcott 1976; Nelson 1987a (biol.); Davies 1991 (distr.).
Distribution: **Canada**: BC; **USA**: AZ, CA, CO, ID, KS, MT, NE, NM, OR, UT, WA
Host(s): larvae in *Pinus monophylla* Torr. & Frem., *P. ponderosa* Laws. and *Pseudotsuga menziesii* (Mirb.) Franco.

torva Casey 1909 [syn. of *nutalli*]
violescens Casey 1909 [syn. of *subornata*]

subgenus *Buprestis* (*Cypriacis*) Casey 1909
Buprestis (*Cypriacis*) Casey 1909:116.
Type species: *Ancylochira lauta* LeConte 1854 (fixed by original designation) (= *aurulenta* Linnaeus 1767).
Taxonomy: Casey 1909; Burke 1917a; Nicolay & Weiss 1918; Helfer 1941; Richter 1952; Kurosawa 1988; Bellamy & Nelson 2002; Bellamy 2003a.
Redescription: Kurosawa 1988:264.
Key(s): Casey 1909:117; Helfer 1941:131 (USA); Barr 1971:61 (Pacific NW); Wellso, *et al*. 1976:8 (MI).

adjecta (LeConte) 1854:17 (*Ancylochira*).
Type locality: WA, between Ft. Vancouver & Yokolt Plain – Type depository: MCZC 2674.
synonym: *brevis* Casey 1909:117 – Synonymy: Nicolay & Weiss 1918:84.
Type locality: BC, Vancouver Island, Nanaimo – Type depository: USNM 35792 (♀).
Taxonomy: Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988; Bellamy & Nelson 2002.
Redescription: Helfer 1941:149 (♂, ♀), plate 3, figs. 8, 12b (♂ genitalia, ovipositor), plate 6 (adult); Barr 1971: plate 6 (adult); Akiyama & Ohmomo 2000: fig. 943 (♀).
Ecology: Burke 1918b; Helfer 1941; Beer 1949 (biol.); Nelson & Westcott 1976; Davies 1991 (distr.); MacRae 2006 (biol., distr.).

Distribution: **Canada**: BC; **USA**: CA, CO, ID, MT, NM, NV, OR, WA, WY

Host(s): larvae in *Abies concolor* (Gord. & Glend.) Lindl., *Pinus contorta* Loud. var. *murrayana* (Grev. & Balf.) Critchf., *P. jeffreyi* (Grev. & Balf.), *P. ponderosa* Laws. and *Pseudotsuga menziesii* (Mirb.) Franco.

aemula Casey 1909 [syn. of *aurulenta*]

aurulenta Linnaeus 1767:661.

Type locality: Carolina – Type depository: LSUK.

synonym: *lauta* (LeConte) 1854:17 (*Ancylochira*) – Synonymy: Kerrermans 1892:94.

Type locality: OR – Type depository: MCZC 2672 (Lectotype not designated).

synonym: *radians* (LeConte) 1854:17 (*Ancylochira*) – Synonymy: Nicolay & Weiss 1918:82.

Type locality: WA, Ft. Vancouver – Type depository: MCZC 2673.

synonym: *chrysochlora* (Philippi) 1864:314 (*Stigmodera*) – Synonymy: Helfer 1941:140.

Type locality: Chile, Valparaiso – Type depository: MHNC.

synonym: *villosa* (LeConte) 1873:331 (*Ancylochira*) – Synonymy: Nicolay & Weiss 1918:82

Type locality: CA – Type depository: "type in coll. Lansberge" (MNHN?).

synonym: *fabulosa* Casey 1909:119 – Synonymy: Nicolay & Weiss 1918:82.

Type locality: Mexico, Chihuahua – Type depository: USNM 35795.

synonym: *nupta* Casey 1909:121 – Synonymy: Nicolay & Weiss 1918:82.

Type locality: ID, Coeur d'Alene – Type depository: USNM 35798 (♀).

synonym: *tacomae* Casey 1909:121 – Synonymy: Nicolay & Weiss 1918:82.

Type locality: WA, Tacoma – Type depository: USNM 35797 (♂).

synonym: *aemula* Casey 1909:121 – Synonymy: Nicolay & Weiss 1918:82.

Type locality: CO, Boulder Co. – Type depository: USNM 35796 (♀).

synonym: *venusta* Casey 1909:122 – Synonymy: Nicolay & Weiss 1918:82.

Type locality: CA – Type depository: USNM 35799 (♀) (Lectotype designation: Bellamy & Nelson 1990:293).

synonym: *adulans* Casey 1909:123 – Synonymy: Nicolay & Weiss 1918:83.

Type locality: CA, Yreka – Type depository: USNM 35801 (♀).

synonym: *affinis* Casey 1909:123 – Synonymy: Nicolay & Weiss 1918:83.

Type locality: OR – Type depository: USNM 35802 (♀).

synonym: *sterbai* Obenberger 1943:109 – Synonymy: Kurosawa 1989:190 (under *venusta* Casey).

Type locality: Japan meridionalis – Type depository: NMPC 21996 (♂).

Immature stages: Burke 1917a: plate 1, fig. 4 (larva).

Taxonomy: Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988.

Redescription: Helfer 1941:140 (♂, ♀), plate 3, fig. 4 (♂ genitalia), plate 5 (adult); Barr 1971: plate 6 (adult); Akiyama & Ohmomo 2000: figs. 938, 939, 940 (♂ & ♀ as *aurulenta, adulans, & tacoynae*).

Ecology: Burke 1918b; Helfer 1941; Chamberlin 1947; Beer 1949 (biol.); Bright 1987 (biol., distr.); Davies 1991 (distr.).

Distribution: **Canada**: AB, BC, MB; **USA**: AZ, CA, CO, ID, MT, NM, NV, OR, UT, WA, WY; also recorded from Mexico.

Host(s): larvae in *Abies concolor* (Gord. & Glend.) Lindl., *A. grandis* (Dougl.) Lindl., *Pinus contorta* Loud., *P. flexilis* James, *P. jeffreyi* Grev. & Balf., *P. lambertiana* Dougl., *P. muricata* D. Don, *P. ponderosa* Laws., *P. radiata* D. Don, *Pseudotsuga menziesii* (Mirb.) Franco and *Thuja plicata* D. Don.

brevis Casey 1909 [syn. of *adjecta*]

canadensis Casey 1909 [syn. of *striata*]

chrysochlora (Philippi 1864) [syn. of *aurulenta*]

contortae Hopping 1933 [syn. of *intricata*]

fabulosa Casey 1909 [syn. of *aurulenta*]

impedita Say 1833 [syn. of *striata*]

intricata Casey 1909:118.

Type locality: NM – Type depository: USNM 35793.

synonym: *contortae* Hopping 1933:84 (preoccupied: *contortae* Casey 1909).

Type locality: Canada: BC, Midday Valley, Merritt – Type depository: CNCI 3267 (♂).

synonym: *murrayanae* Hopping 1934:174 (replacement name for *contortae* Hopping 1933).

Taxonomy: Helfer 1941; Kurosawa 1988.
Redescription: Helfer 1941:146 (♂, ♀), plate 3, figs. 7, 12a (♂ genitalia, ovipositor), plate 6, fig. 2 (adult); Akiyama & Ohmomo 2000: fig. 942 (♂).
Ecology: Helfer 1941 (biol., distr.); Nelson & Westcott 1976; Bright 1987; Davies 1991; Nelson, *et al.* 1996 (distr.).
Distribution: **Canada**: AB, BC; **USA**: AZ, CA, CO, ID, MT, NM, OR, WA, WY
Host(s): larvae in *Pinus contorta* Loud.; adults also on *P. ponderosa* Laws.

lateralis Casey 1909 [syn. of *sulcicollis*]
lauta (LeConte 1854) [syn. of *aurulenta*]
murrayanae Hopping 1934 [syn. of *intricata*]
nupta Casey 1909 [syn. of *aurulenta*]
obscura Casey 1909 [syn. of *striata*]
prospera Casey 1909:122.
Type locality: NM – Type depository: USNM 35800.
Taxonomy: Knull 1947b; Kurosawa 1988.
Ecology: Nelson & Westcott 1976; Walters & Bellamy 1982; Westcott 1991 (distr.).
Distribution: **USA**: AZ, CA, NM, NV, UT
Host(s): adults on *Pinus monophylla* Torr. & Frem.

radians (LeConte 1854) [syn. of *aurulenta*]
striata Fabricius 1775:217.
Type locality: PA – Type depository: BMNH.
synonym: *impedita* Say 1833:63 – Synonymy: Helfer 1941:144.
Type locality: PA, near Philadelphia – Type depository: type destroyed.
synonym: *canadensis* Casey 1909:124 – Synonymy: Nicolay & Weiss 1918:87.
Type locality: Canada: ON, Georgian Bay – Type depository: USNM 35803 (♀).
synonym: *obscura* Casey 1909:125 (preoccupied: Fabricius 1781) – Synonymy: Nicolay & Weiss 1918:85.
Type locality: PA – Type depository: USNM 35804 (♀) (Lectotype designation: Bellamy & Nelson 1990:293).
Taxonomy: Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988.
Redescription: Helfer 1941:144 (♂, ♀), plate 3, fig. 6 (♂ genitalia), plate 5, fig. 5 (adult); Akiyama & Ohmomo 2000: fig. 941 (♂, ♀).
Ecology: Knull 1922; Helfer 1941; Howden & Vogt 1951 (biol.); Nelson, *et al.* 1981; Bright 1987; Nelson & MacRae 1990; Davies 1991; Westcott 2001b (distr.); MacRae 2006 (biol., distr.).
Distribution: **Canada**: NB, ON, PQ; **USA**: AL, AR, DC, FL, GA, IL, IN, LA, MA, MD, ME, MI, MO, NC, NH, NJ, NY, OH, PA, SC, TN, TX, VA, VT, WV; also recorded from the West Indies.
Host(s): larvae in *Picea* sp., *Pinus palustris* Mill., *P. rigida* Mill., *P. strobus* L., *P. virginiana* Mill. and *Tsuga canadensis* (L.) Carr.

sulcicollis (LeConte) 1860:209 (*Ancylochira*).
Type locality: Lake Superior – Type depository: MCZC 2671 (♀).
synonym: *lateralis* Casey 1909:119 – Synonymy: Nicolay & Weiss 1918:85.
Type locality: MI, Lake Superior, Whitefish Point – Type depository: USNM 35794 (♂).
Taxonomy: Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988.
Redescription: Helfer 1941:142 (♂, ♀), plate 3, fig. 5 (♂ genitalia), plate 5, fig. 4 (adult).
Ecology: Helfer 1941; Bright 1987 (biol., distr.); Davies 1991; Westcott 1991 (distr.).
Distribution: **Canada**: AB, MB, NS, NT, ON, PQ; **USA**: ME, MI, NH, NJ, NY, PA, WI
Host(s): larvae in *Pinus rigida* Mill. and *P. strobus* L.

tacomae Casey 1909 [syn. of *aurulenta*]
venusta Casey 1909 [syn. of *aurulenta*]
villosa (LeConte 1873) [syn. of *aurulenta*]

subgenus *Buprestis* (*Knulliobuprestis*) Kurosawa 1988
Buprestis (*Knulliobuprestis*) Kurosawa 1988:273.
Type species: *Buprestis rufipes* Olivier 1790 (fixed by original designation).
Taxonomy: Bellamy & Nelson 2002.

confluenta Say 1823:159.
Type locality: MO, Fort Osage – Type depository: type destroyed.
misspellling: *confluens* (misspelling).
synonym: *tesselata* Casey 1909:104 (as subspecies of *confluenta*) – Synonomy: Nicolay & Weiss 1918:98.
Type locality: TX – Type depository: USNM 35759 (♂).
Taxonomy: Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988; Nelson 1991.
Redescription: Helfer 1941:181 (♂, ♀), plate 4, fig.7 (♂ genitalia), plate 8, figs. 3, 5 (adults); Barr 1971: plate 6, fig. 9 (adult); Akiyama & Ohmomo 2000: fig. 927 (♂, ♀).
Ecology: Burke 1917b; 1918b (biol. as *confluens*); 1920a; Helfer 1941; Nelson & Westcott 1976; Nelson, *et al*. 1981; Bright 1987; Davies 1991 (distr.); MacRae 2006 (biol., distr.).
Distribution: **Canada**: AB, BC, MB, ON, PQ, SK; **USA**: CA, CO, IA, ID, IL, IN, KS, MI, MO, MT, ND, NE, NM, NV, OK, OR, SD, TX, UT, WA, WI, WY
Host(s): larvae in *Populus deltoides* Marsh., *P. deltoides* ssp. *monilifera* (Ait.) Eckenwalder and *P. tremuloides* Michx.
elongata Casey 1909 [syn. of *rufipes*]
fremontiae Burke 1924:70 (♂, ♀).
Type locality: CA, Madera Co., North Fork – Type depository: USNM 26885 (♀).
Taxonomy: Helfer 1941; Kurosawa 1988.
Redescription: Helfer 1941:179 (♂, ♀), plate 4, fig. 11 (♂ genitalia), plate 9, fig. 2 (adult ♀); Akiyama & Ohmomo 2000: fig. 928 (♂, ♀).
Ecology: Helfer 1941 (biol., distr.).
Distribution: **USA**: CA
Host(s): larvae in *Fremontodendron californicum* (Torr.) Cov.
gibbsii (LeConte) 1857b:42, plate 1, fig. 17 (adult) (*Ancylochira*).
Type locality: WA, Steilacoom – Type depository: MCZC 2666.
Taxonomy: Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988.
Redescription: Helfer 1941:175 (♂, ♀), plate 4, fig. 9 (♂ genitalia), plate 8, fig. 4 (adult ♀); Akiyama & Ohmomo 2000: fig. 931 (♂, ♀).
Ecology: Burke 1920a; 1924b; Beer 1941 (biol.); Helfer 1941 (biol., distr.).
Distribution: **USA**: CA, OR, WA
Host(s): larvae in *Quercus garryana* Hook. and *Q. kelloggii* Newb.
lesnei Garnett 1922 [syn. of *viridisuturalis*]
rufipes Olivier 1790:16, plate 73, fig. 7a, b (adult).
Type locality: "l'Amérique septentrionale, la Caroline" – Type depository: type destroyed (MNHN ?)
synonym: *elongata* Casey 1909:105 – Synonymy: Nicolay & Weiss 1918:106.
Type locality: NY – Type depository: USNM 35773.
synonym: *virens* Casey 1909:105 – Synonymy: Casey 1914:335.
Type locality: CA (probably an error) – Type depository: USNM 35772 (♀).
Taxonomy: Casey 1914; Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988.
Redescription: Helfer 1941:173 (♂, ♀), plate 4, fig. 8 (♂ genitalia), plate 8, fig. 6 (adult); Akiyama & Ohmomo 2000: fig. 929 (♂, ♀).
Ecology: Dury 1902; Burke 1918b; Nicolay & Weiss 1918; Knull 1920; Nelson & Westcott 1976; Nelson, *et al*. 1981; Nelson 1987a (distr.); MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AL, AR, DC, DE, FL, GA, IN, KS, KY, LA, MD, MO, NC, NJ, OH, OK, PA, SC, TX, VA, WV
Host(s): larvae in *Acer saccharinum* L., *A. saccharum* Marsh., *Fagus grandifolia* Ehrh., *Nyssa sylvatica* Marsh., *Quercus palustris* Muenchh., *Ulmus americana* L. and *U. rubra* Muhl.; adults also on *Platanus occidentalis* L.
tesselata Casey 1909 [syn. of *confluenta*]
virens Casey 1909 [syn. of *rufipes*]
viridisuturalis Nicolay & Weiss 1918:100.
Type locality: Southern CA, Tulare Co. – Type depository: USNM 35463 (♂).
misidentification: *gibbsii* of authors, not *gibbsii* LeConte 1857.
synonym: *lesnei* Garnett 1922:9 (as variety of *viridisuturalis*) – Synonymy: Helfer 1941:177.

Type locality: CA, San Bernardino Co., Oro Grande – Type depository: CASC 4508.
Taxonomy: Nicolay & Weiss 1918; Helfer 1941.
Redescription: Helfer 1941:177 (♂, ♀), plate 4, fig. 10 (♂ genitalia); Barr 1971: plate 7, figs. 1, 2 (♂, ♀); Akiyama & Ohmomo 2000: fig. 932 (♂, ♀).
Ecology: Burke 1920a (biol.); Helfer 1941 (biol., distr.); Westcott 2005 (distr.).
Distribution: **USA**: CA, NV, OR, WA
Host(s): larvae in *Alnus rhombifolia* Nutt., *Populus balsamifera* L. ssp. *trichocarpa* (T. & G.) Brayshaw, *P. deltoides* Bartr. ex Marsh., *P. fremontii* S. Wats. and *Salix gooddingii* Ball.

subgenus *Buprestis* (*Nelsonocheira*) Kurosawa 1988
Cypriacis (*Nelsonocheira*) Kurosawa 1988:266.
Type species: *Buprestis fasciata* Fabricius 1787 (fixed by original designation).
Taxonomy: Kurosawa 1988; Bellamy & Nelson 2002.

angusta Casey 1909 [syn. of *langii*]
bistrinotata Casey 1909 [syn. of *langii*]
callida Casey 1909 [syn. of *langii*]
crenata Casey 1909 [syn. of *langii*]
depressa Casey 1909 [syn. of *langii*]
fasciata Fabricius 1787:177.
Type locality: "Amer. Bor." – Type depository: GUHC (♀).
synonym: *sexmaculata* Hausmann 1799:30 – Synonymy: Helfer 1941:155.
Type locality: "Amer. Sept." – Type depository: unknown.
synonym: *sexplagiata* (LeConte) 1860:205 (*Ancylochira*) – Synonymy: Kerremans 1892:95.
Type locality: VT – Type depository: MCZC 2670 (♀) (Lectotype not designated).
synonym: *lherminieri* (Chevrolat) 1838:68 (*Ancylochira*) – Synonymy: Kerremans 1892:95.
Type locality: Insula Guadulpiae, Pointe à Pitre – Type depository: BMNH.
synonym: *fulgens* Casey 1909:106 – Synonymy: Casey 1914:355.
Type locality: Dakota – Type depository: USNM (♀) (Lectotype designation: Bellamy & Nelson 1990:292).
synonym: *fortunata* Casey 1909:107 (as subspecies of *sexplagiata* LeConte) – Synonymy: Nicolay & Weiss 1918:102.
Type locality: MI – Type depository: USNM (Lectotype not designated).
synonym: *saturata* Casey 1909:114 – Synonymy: Nicolay & Weiss 1918:102.
Type locality: MI, Lake Superior, Isle Royale – Type depository: USNM 35791.
Taxonomy: Casey 1914; Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988.
Redescription: Good 1925: plate 8 (wing); Staig 1940: plate 40 (type); Helfer 1941:155 (♂, ♀), plate 3 (♂ genitalia), plate 6, 7 (♀, ♂); Akiyama & Ohmomo 2000: fig. 948 (♂, ♀).
Ecology: Helfer 1941; Nelson, *et al*. 1981; Bright 1987; Davies 1991 (distr.).
Distribution: **Canada**: MB, NB, NS, ON, PQ, SK; **USA**: AL, GA, IN, KY, MD, ME, MI, MN, MS, NC, NH, NJ, NY, OH, PA, VA, VT, WI; also recorded from the West Indies.
Host(s): adults on *Abies* sp., *Picea* sp. and *Quercus* sp.
fastidiosa Casey 1909 [syn. of *langii*]
fortunata Casey 1909 [syn. of *fasciata*]
fulgens Casey 1909 [syn. of *fasciata*]
graminea Casey 1909 [syn. of *langii*]
incolumis Casey 1909 [syn. of *langii*]
langii Mannerheim 1843:237.
Type locality: AK, "Insula Sitkha" – Type depository: UZMH (♀) (Lectotype designation: Nelson 1976:167).
synonym: *ornata* Walker 1866:324 – Synonymy: Nicolay & Weiss 1918:103.
Type locality: BC & Vancouver Island – Type depository: BMNH.
synonym: *angusta* Casey 1909:108 – Synonymy: Nicolay & Weiss 1918:103.
Type locality: CA – Type depository: USNM 35777 (♂).
synonym: *bistrinotata* Casey 1909:108 – Synonymy: Nicolay & Weiss 1918:103.
Type locality: CA – Type depository: USNM 35776.

synonym: *callida* Casey 1909:109 – Synonymy: Nicolay & Weiss 1918:104.
Type locality: OR, Newport – Type depository: USNM 35778 (♂).
synonym: *fastidiosa* Casey 1909:109 – Synonymy: Nicolay & Weiss 1918:104.
Type locality: CA – Type depository: USNM 35781 (♀) (Lectotype designation: Bellamy & Nelson 1990:292).
synonym: *mediocris* Casey 1909:109 (as subspecies of *fastidiosa*) – Synonymy: Nicolay & Weiss 1918:104.
Type locality: CA – Type depository: USNM 35782.
synonym: *crenata* Casey 1909:110 – Synonymy: Nicolay & Weiss 1918:104.
Type locality: CA – Type depository: USNM 35787 (♀) (Lectotype designation: Bellamy & Nelson 1990:292.).
synonym: *seditiosa* Casey 1909:110 (as subspecies of *crenata*) – Synonymy: Nicolay & Weiss 1918:104.
Type locality: CA, Yreka – Type depository: USNM 35786 (♂).
synonym: *leviceps* Casey 1909:110 – Synonymy: Nicolay & Weiss 1918:104.
Type locality: WA, Tacoma – Type depository: USNM 35788 (♀).
synonym: *depressa* Casey 1909:111 – Synonymy: Nicolay & Weiss 1918:104.
Type locality: CA – Type depository: USNM 35779 (♂).
synonym: *viridimicans* Casey 1909:111 – Synonymy: Nicolay & Weiss 1918:104.
Type locality: Canada: BC, Stickine River. Type depository: USNM 35780
synonym: *incolumis* Casey 1909:112 (as subspecies of *langii*) – Synonymy: Nicolay & Weiss 1918:104.
Type locality: Canada: BC, Vancouver Island, Na naimo – Type depository: USNM 35785.
synonym: *oregona* Casey 1909:112 (as subspecies of *langii*) – Synonymy: Nicolay & Weiss 1918:104.
Type locality: OR – Type depository: USNM 35783.
synonym: *graminea* Casey 1909:113 – Synonymy: Nicolay & Weiss 1918:104.
Type locality: CO, Boulder Co. – Type depository: USNM 35790 (♀) (Lectotype designation: Bellamy & Nelson 1990:292).
synonym: *obliqua* Casey 1909:113 (as subspecies of *langii*) – Synonymy: Nicolay & Weiss 1918:104.
Type locality: Canada: BC, Golden – Type depository: USNM 35784.
synonym: *patruelis* Casey 1909:113 – Synonymy: Nicolay & Weiss 1918:104.
Type locality: NM – Type depository: USNM 35789.
Taxonomy: Casey 1914; Nicolay & Weiss 1918 (as variety of *fasciata*); Helfer 1941; Kurosawa 1988.
Redescription: Helfer 1941:153 (♂, ♀), plate 3, fig. 10 (♂ genitalia), plate 6, figs. 4, 5 (adult ♂, ♀); Akiyama & Ohmomo 2000: fig. 947 (♂, ♀).
Ecology: Helfer 1941; Beer 1949 (biol.); Nelson & Westcott 1976; Nelson, *et al.* 1981; Bright 1987 (biol., distr.); Davies 1991 (distr.).
Distribution: **Canada**: AB, BC, MB, SK; **USA**: AZ, CA, CO, ID, MT, NE, NM, NV, OR, SD, UT, WA, WY
Host(s): larvae in *Pseudotsuga menziesii* (Mirb.) Franco.
leviceps Casey 1909 [syn. of *langii*]
lherminieri (Chevrolat 1838) [syn. of *fasciata*]
mediocris Casey 1909 [syn. of *langii*]
obliqua Casey 1909 [syn. of *langii*]
oregona Casey 1909 [syn. of *langii*]
ornata Walker 1866 [syn. of *langii*]
patruelis Casey 1909 [syn. of *langii*]
saturata Casey 1909 [syn. of *fasciata*]
seditiosa Casey 1909 [syn. of *langii*]
sexmaculata Hausmann 1799 [syn. of *fasciata*]
sexplagiata (LeConte 1860) [syn. of *fasciata*]
viridimicans Casey 1909 [syn. of *langii*]

subgenus *Buprestis* (*Stereosa*) Casey 1909
Buprestis (*Stereosa*) Casey 1909:126.
Type species: *Buprestis decora* Fabricius 1775 (fixed by original designation).
Taxonomy: Casey 1909; Burke 1917a; Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988; Bellamy

& Nelson 2002.
Redescription: Kurosawa 1988:272.
Key(s): Helfer 1941 (No. Amer. sp.); Wellso, *et al.* 1976 (MI sp.).

apricans Herbst 1801:125, plate 145, fig. 9 (adult).
Type locality: "Amer." – Type depository: MNHN (Lectotype not designated).
synonym: *bosci* Laporte & Gory 1837:146, plate 36, fig. 201 (adult) – Synonymy: Kerremans 1892:93.
Type locality: "Amer. Bor." Type depository: MNHN (Lectotype not designated).
synonym: *cribripennis* Casey 1909:127 – Synonymy: Nicolay & Weiss 1918:88.
Type locality: AL, Grand Bay – Type depository: USNM 35805 (♂) (Lectotype designation: Bellamy & Nelson 1990:296).
Immature stages: Burke 1917a: plate 1, fig. 3 (larva).
Taxonomy: Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988.
Redescription: Helfer 1941:136 (♂, ♀), plate 3, fig. 1 (♂ genitalia), plate 5, fig.2 (adult); Akiyama & Ohmomo 2000: fig. 937 (♂, ♀).
Ecology: Burke 1918b (biol.); Helfer 1941 (biol., distr.); Nelson & Westcott 1981 (distr.).
Distribution: **USA**: AL, AR, FL, GA, LA, MS, NC, NJ, NY, PA, SC, TX, VA (?); also recorded from the West Indies.
Host(s): larvae in *Pinus palustris* Mill. and *P. taeda* L.
bosci Laporte & Gory 1837 [syn. of *apricans*]
cazieri Helfer 1946 [syn. of *salisburyensis*]
connexa Horn 1875:148.
Type locality: OR – Type depository: MCZC 8304 (♀).
Taxonomy: Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988.
Redescription: Helfer 1941:151 (♂, ♀), plate 3, fig. 9 (♂ genitalia), plate 6, fig. 3 (adult); Akiyama & Ohmomo 2000: fig. 936 (♀).
Ecology: Chamberlin 1917; Burke 1918b; Chamberlin 1925 (biol.); Helfer 1941; Nelson 1967a (distr.).
Distribution: **USA**: CA, ID, NV, OR, WA
Host(s): larvae in *Pinus jeffreyi* Grev. & Balf. and *P. ponderosa* Laws.
cribripennis Casey 1909 [syn. of *apricans*]
decora Fabricius 1775:217.
Type locality: "Amer." – Type depository: BMNH.
Taxonomy: Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988.
Redescription: Helfer 1941:137 (♂, ♀), plate 3, fig. 3 (♂ genitalia), plate 5, fig. 1 (adult); Akiyama & Ohmomo 2000: fig. 934 (♂, ♀).
Ecology: Helfer 1941 (biol., distr.); Nelson, *et al.* 1981; Nelson & MacRae 1990 (distr.).
Distribution: **USA**: AL, AR, DC, FL, GA, LA, MO, MS, NC, NJ, NY, PA, TX, VA; also recorded from the West Indies.
Host(s): larvae in *Pinus palustris* Mill.
salisburyensis Herbst 1801:174, plate 148, fig. 8 (adult).
Type locality: "Amer." – Type depository: unknown (ZMHB).
synonym: *ultramarina* Say 1833:64 – Synonymy: Nicolay & Weiss 1918:89.
Type locality: NJ. – Type depository: type destroyed.
synonym: *cazieri* Helfer 1946:100 (as subspecies of *salisburyensis*) – Synonymy: Nelson 1980a:87.
Type locality: NY, Bear Mtn. – Type depository: CASC 5765 (♀).
Taxonomy: Nicolay & Weiss 1918; Helfer 1941; Nelson 1980a; Kurosawa 1988.
Redescription: Helfer 1941:139 (♂, ♀), plate 3, fig. 2 (♂ genitalia), plate 5, fig. 3 (adult); Akiyama & Ohmomo 2000: fig. 935 (♂, ♀).
Ecology: Helfer 1941; Bright 1987 (biol., distr.); Nelson 1987a; Nelson & MacRae 1990; Davies 1991 (distr.).
Distribution: **Canada**: ON; **USA**: GA, MA, MI, NC, NJ, NY, OK, PA, TN, VA, WI, WV
Host(s): larvae in *Pinus rigida* Mill.
ultramarina Say 1833 [syn. of *salisburyensis*]

Subtribe Agaeocerina Nelson 1982
Agaeocerina Nelson 1982:440.

Type genus: *Agaeocera* Saunders 1871.
Chalcophorini Kerremans 1893 (part).
Classification: Nelson 1982; Bellamy 1985; Hołyński 1993; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Genus *Agaeocera* Saunders 1871
Agaeocera Saunders 1871:50.
Type species: *Anthaxia gigas* Gory & Laporte 1839 (fixed by monotypy).
Anataxis Casey 1909:170 – Synonymy: Leng 1920:179.
Type species: *Halecia gentilis* Horn 1885 (fixed by original designation).
Taxonomy: Kerremans 1909; Nelson 1982; Bellamy 1997b; Vokovitsh, 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Redescription: Kerremans 1909:270; Nelson 1982: figs. 22, 23, 49 (antenna, metaventrite, ♂ genitalia).
Ecology: Kerremans 1909:271 (distr.).
Key(s): Kerremans 1909:272.

fenyesi Kerremans 1903 [syn. of *gentilis gentilis*]
gentilis gentilis (Horn) 1885:144 (*Halecia*).
Type locality: SW TX – Type depository: MCZC.
synonym: *fenyesi* Kerremans 1903:60 – Synonymy: Kerremans 1908:275.
Type locality: Mexico: Laredo – Type depository: BMNH (Lectotype not designated)
Taxonomy: Kerremans 1908; Casey 1909.
Redescription: Kerremans 1908:275; Good 1925: plate 8 (wing); Nelson 1981: figs. 22, 23 (antenna, metaventrite); Akiyama & Ohmomo 2000: fig. 706 (♂, ♀).
Ecology: Cazier 1951b (distr.); Nelson, *et al*. 1981; 1991 (biol., distr.).
Distribution: **USA**: AZ, CA, NM, TX; also recorded from Mexico.
Host(s): larvae in *Sphaeralcea* sp.
scintillans Waterhouse 1882:4.
Type locality: Mexico: Songora – Type depository: BMNH.
Taxonomy: Kerremans 1908.
Redescription: Kerremans 1908:274; Akiyama & Ohmomo 2000: fig. 707 (♂, ♀).
Ecology: Nelson & Westcott 1976; Nelson, *et al*. 1981 (biol.); Westcott 1990 (distr.).
Distribution: **USA**: AZ, TX; also recorded from Mexico.
Host(s): adults on *Abutilon incanum* (Link) Sweet.

***Spectralia* generic group (Tribal level) sensu Volkovitsh 2001**
Spectralia generic group Volkovitsh 2001:58.
Classification: Bellamy 2003a.

Tribe Phrixiini Cobos 1975
Phrixiini Cobos 1975b:102.
Type genus: *Phrixia* Deyrolle 1864.
Classification: Cobos 1975b; Hołyński 1993; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.8.
Key(s): Hołyński 1993:33 (subtribe); Bellamy & Nelson 2002:103.

Genus *Spectralia* Casey 1909
Cinyra (*Spectralia*) Casey 1909:175.
Type species: *Dicerca gracilipes* Melsheimer 1845 (fixed by original designation).
Cinyra of authors (in part), not *Cinyra* Laporte & Gory 1837.
Cynira (*lapsus calami*).
Leptia Chevrolat 1838:78 (*nomen oblitum*).
Immature stages: Burke 1917a: plate 3, fig. 3 (larva).
Taxonomy: Casey 1909; Chamberlin 1920b; Cobos 1979b; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Redescription: Chamberlin 1920b: figs. 1–6 (parts as *Cinyra*).
Key(s): Casey 1909:175; Chamberlin 1920b:243.

abbreviata (Casey 1914) [syn. of *gracilipes*]
cuprescens (Knull) 1940c:363 (*Cinyra*) (♂, ♀).
Type locality: AZ, Tucson Mtns. – Type depository: FMNH (♂).
Taxonomy: Knull 1940c.
Redescription: Akiyama & Ohmomo 2000: fig. 779 (♂, ♀).
Ecology: Knull 1970; Nelson & Westcott 1976 (biol., distr.).
Distribution: **USA**: AZ, NM
Host(s): larvae in *Anisacanthus thurberi* (Torr.) Gray.
gracilipes (Melsheimer) 1845:145 (*Dicerca*).
Type locality: PA – Type depository: type lost (MCZC?).
synonym: *macilenta* (Casey) 1909:176 (*Cinyra*) – Synonymy: Chamberlin 1920b:243.
Type locality: TX – Type depository: USNM 35854.
synonym: *abbreviata* (Casey) 1914:361 (*Cinyra*) – Synonymy: Chamberlin 1926:178.
Type locality: NC, Southern Pines – Type depository: USNM 35853.
synonym: *ocularis* (Casey) 1914:362 (*Cinyra*) – Synonymy: Chamberlin 1926:178.
Type locality: IL – Type depository: USNM 35855.
Immature stages: Burke 1917a: plate 3, fig. 3 (larva).
Redescription: Knull 1925: plate 2, fig. 2 (adult); Good 1925: plate 8 (wing); Bright 1987:49, fig. 81; Akiyama & Ohmomo 2000: fig. 780 (♂, ♀).
Ecology: Knull 1920; 1922 (biol.); 1932; Nelson & Westcott 1976; Wellso, *et al*. 1976 (biol.); Nelson, *et al*. 1981; Davies 1991; Nelson, *et al*. 1996; Peck & Thomas 1998; Westcott 2001b (distr.).
Distribution: **Canada**: ON; **USA**: DC, FL, IA, IL, IN, KS, LA, MA, MD, MI, MN, MO, MS NC, NE, NJ, NY, OH, OK, PA, TN, TX, VA, WI
Host(s): larvae in *Fraxinus* sp., *Ostrya virginiana* (Mill.) K. Koch, *Quercus alba* L., *Q. bicolor* Willd., *Q. macrocarpa* Michx. and *Q. stellata* Wangenh.; adults also on *Celtis* sp., *Crataegus* sp. and flowers of *Solidago* sp.
macilenta (Casey 1909) [syn. of *gracilipes*]
ocularis (Casey 1914) [syn. of *gracilipes*]
prosternalis (Schaeffer) 1904:205 (*Cinyra*).
Type locality: TX, Brownsville, Esperanza Ranch – Type depository: USNM 57405 (♂) (Lectotype designation: Bellamy & Nelson 1990:293).
Ecology: MacRae, 2006 (distr., biol).
Distribution: **USA**: TX
Host(s): larvae in dead *Diospyros texana* Scheele.
purpurascens (Schaeffer) 1905:127 (*Cinyra*).
Type locality: Mexico: Baja CA, El Taste – Type depository: USNM 42653.
Redescription: Akiyama & Ohmomo 2000: fig. 778 (♂).
Ecology: Nelson 1962 (biol., distr.); Bellamy 2003b (biol.).
Distribution: **USA**: CA; also recorded from Mexico.
Host(s): larvae in *Justicia californica* (Benth.) D. Gibson.
riograndei (Knull 1937) [syn. of *robusta*]
roburella (Knull) 1941a:99 (*Cinyra*).
Type locality: TX, Davis Mtns. – Type depository: FMNH (♂).
Redescription: Akiyama & Ohmomo 2000: fig. 776 (♀ as *robullela*, *lapsus calami*).
Ecology: Nelson, *et al*. 1981(biol.); MacRae 2006 (biol., distr.).
Distribution: **USA**: TX
Host(s): larvae in *Quercus pungens* Liebm. var. *vaseyana* (Buckl.) C.H. Muller.; adults also on *Q. grisea* Liebm.
robusta (Chamberlin) 1920b:241 (*Cinyra*).
Type locality: TX – Type depository: CASC
misidentification: *prosternalis* of authors, not *prosternalis* Schaeffer 1904.
synonym: *riograndei* (Knull) 1937a:16 (♂, ♀) (*Psiloptera*) – Synonymy: Knull 1950:89; 1970:264.
Type locality: TX, Pecos River – Type depository: FMNH (♂).
Taxonomy: Nelson 1985b.
Redescription: Akiyama & Ohmomo 2000: fig. 777 (♀).
Ecology: Nelson 1968a (biol.); MacRae 2006 (biol., distr.).

Distribution: **USA**: TX
Host(s): larvae in *Diospyros texana* Scheele.

Tribe Anthaxiini Gory & Laporte 1839
"Anthaxites, Anthaxidae" Gory & Laporte 1839:1.
Type genus: *Anthaxia* Eschscholtz 1829.
Scutellatae (Section 5) Schönherr 1817 (part).
Anthaxidae, Anthaxites Gory & Laporte 1839 (part).
Anthaxiites Jacquelin du Val 1863 (part).
Anthaxiae LeConte 1861.
Anthaxiina C. G. Thomson 1864.
Anthaxini Kerremans 1893.
Anthaxites Kerremans 1903.
Melanophilini Bedel 1921 (part).
Buprestini Arnett 1962 (part).
Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1903; Cobos 1956c; 1971; Arnett 1962; Nelson 1982; Bellamy 1985; Hołyński 1993; Bílý 1997; 1999b; 2000; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.
Key(s): Kerremans 1893:109; 1903:154; Cobos 1956c:105, 107 (genera); 1958a:71, 84 (species); 1971:10; Arnett 1962:485 (genera); Hołyński 1993:33 (subtribes); Bellamy & Nelson 2002:104 (subtribes & genera).

Subtribe Anthaxiina Gory & Laporte 1839
"Anthaxites, Anthaxidae" Gory & Laporte 1839:1.
Classification: Cobos 1958a; Bílý 1997; 1999b; 2000; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.
Key(s): Cobos 1958a:71, 84 (subgenera & species).

Genus *Agrilaxia* Kerremans 1903
Agrilaxia Kerremans 1903:177.
Type species: *Anthaxia flavimana* Gory 1841 (fixed by subsequent designation: Chamberlin 1926:45).
Taxonomy: Cobos 1971 (revision); Nelson 1985b; Bílý 1997; Bílý & Bellamy 1999; Bellamy & Nelson 2002; Bellamy 2003a.
Redescription: Cobos 1971:8; Nelson 1985b:136; Bílý & Bellamy 1999:93.
Key(s): Cobos 1971:10.

arizonae Chamberlin 1926 [syn. of *flavimana*]
arizonae Obenberger 1922 [syn. of *flavimana*]
borealis Obenberger 1924 [syn. of *flavimana*]
flavimana (Gory) 1841:291 (*Anthaxia*).
Type locality: "Amer. Bor." – Type depository: MNHN (♂).
synonym: *gracilis* (Melsheimer) 1845:148 (*Anthaxia*) – Synonymy: LeConte 1860b:218.
Type locality: PA. Type depository: type lost (MCZC?).
synonym: *arizonae* Obenberger 1922:180 – Synonymy: Cobos 1971:48
Type locality: AZ – Type depository: NMPC.
synonym: *borealis* (Obenberger) 1924:107 (*Anthaxia*) – Synonymy: Cobos 1971:48.
Type locality: PA, Jeannette – Type depository: NMPC.
synonym: *arizonae* Chamberlin 1926:46 (as variety of *flavimana*) (preoccupied: *arizonae* Obenberger 1922) – Synonymy: Cobos 1971:48.
Type locality: AZ, Huachuca Mtns. – Type depository: unknown (CASC?).
synonym: *huachucae* Obenberger 1930:551 (replacement name for *arizonae* Chamberlin 1926) – Synonymy: Cobos 1971:48.
Taxonomy: Cobos 1971; Bílý 1997; Bílý & Bellamy 1999.
Redescription: Good 1925: plate 11 (wing); Cobos 1971:48 (♂, ♀), fig. 2 (♂) plate 2 (♀, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1007 (♂, ♀).
Ecology: Cobos 1971; Nelson, *et al.* 1981; Nelson 1987a; Westcott, *et al.* 1990; MacRae 1991; Bílý

1997 (distr.); MacRae & Nelson 2003; MacRae 2006 (biol., distr.); Wellso & Jackman 2006 (biol.).

Distribution: **USA**: AL, AR, AZ, CO, DC, FL, GA, IL, IN, KS, KY, LA, MD, MI, MO, MS, NC, NJ, NM, NY, OK, PA, SC, TN, TX, VA, WV; also recorded from Mexico.

Host(s): larvae in *Cercis canadensis* L., *Pinus echinata* Mill., *P. ponderosa* Laws., *Prunus domestica* L., *Quercus alba* L., *Q. arizonica* Sarg., *Q. macrocarpa* Michx., *Q. muehlenbergii* Engelm., *Q. pungens* Liebm. var. *vaseyana* (Buckl.) C.H. Muller., *Q. stellata* Wangenh. *Q. virginiana* Mill. and *Ulmus crassifolia* Nutt.; adults also on foliage and flowers of many plants.

gracilis (Melsheimer 1845) [syn. of *flavimana*]

hespenheidei (Bílý) 1984:220 (*Anthaxia*), figs. 4, 13 (adult, ♂ genitalia).

Type locality: AZ, Cochise Co., Huachuca Mtns., Copper Cyn. – Type depository: USNM (♂).

Taxonomy: Bílý 1997.

Redescription: Akiyama & Ohmomo 2000: fig.1008 (♂, ♀).

Ecology: Nelson 1987a; Bílý 1997 (distr.); Akiyama & Ohmomo 2002; Bellamy 2003b (biol.); MacRae 2006 (biol., distr.).

Distribution: **USA**: AZ, NM; also recorded from Mexico.

Host(s): adults on *Quercus arizonica* Sarg. and *Rhus virens* Lindenheimer ex Gray var. *choriophylla* (Woot. & Standl.) L. Benson; also on flowers of *Bouvardia ternifolia* (Cav.) Schltdl. and *Cirsium* sp.

Genus *Anthaxia* Eschscholtz 1829

Anthaxia Eschscholtz 1829:9.

Type species: *Buprestis nitida* Rossi 1794 (designated by Westwood 1838:24).

Anthraxia Stephens 1839:103 (*lapsus calami*).

Paranthaxia Gozis 1886:21 – Synonymy: Obenberger 1958:228.

Type species: *Buprestis nitida* Rossi 1794 (fixed by subsequent designation: Bílý 2006c:58).

Trichocratomerus Richter 1944:111 (as subgenus of *Cratomerus*) – Synonymy: Nelson 1985b:135.

Type species: Unavailable name, without fixation of type species in original publication (ICZN 1999 Article 13.3).

Anthaxiola Richter 1944:118 – Synonymy: Obenberger 1958:228.

Type species: *Anthaxia anatolica* Chevrolat 1838 (fixed by monotypy).

Homalanthaxia Richter 1944:118 – Synonymy: Obenberger 1958:229.

Type species: Unavailable name, without fixation of type species in original publication (ICZN 1999 Article 13.3).

Cyclanthaxia Richter 1944:121 – Synonymy: Obenberger 1958:228.

Type species: *Buprestis croesus* Villers 1789 (fixed by subsequent designation: Richter 1949:137).

Callanthaxia Richter 1944:124 – Synonymy: Obenberger 1958:228.

Type species: *Buprestis passerinii* Pecchioli 1837 (fixed by subsequent designation: Richter 1949:168).

Eoanthaxites Haupt 1950:68 – Synonymy: Obenberger 1958:228.

Type species: *Coraebus carniolica* Pongrácz 1935 (fixed by original designation).

Immature stages: Burke 1917a (larva).

Taxonomy: Cobos 1958a (rev. N. Amer. spp.); Bílý 1997 (world catalog); Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Ecology: Cobos 1958a.

Key(s): Obenberger 1928:247 (N. Amer. spp.); Cobos 1958a:84 (No. Amer.); Barr 1971:67 (Pacific NW spp.); Wellso, *et al*. 1976:9 (MI spp.); Bright 1987:141 (Canada spp.); Downie & Arnett 1996:751 (NE No. Amer. spp.).

subgenus *Anthaxia* (*Anthaxia*) Eschscholtz 1829

Anthaxia Eschscholtz 1829:9.

Type species: *Buprestis nitida* Rossi 1794.

amplexus Rey 1891 [syn. of *salicis*]

croesus (Villiers) 1789) [syn. of *salicis*]

hirticollis Rey 1891 [syn. of *salicis*]

salicis (Fabricius) 1776:237 (*Buprestis*).
Type locality: Germaniae Salice. Europe; Asia Minor; N. Africa (Old World, accidentally introduced into No. Amer., current presence needs verification) – Type depository: UZMC.
synonym: *croesus* (Villiers) 1789:339 (*Buprestis*) – Synonymy: Schaefer 1937:211.
Type locality: Environs de Marseille – Type depository: MNHN.
synonym: *amplexus* Rey 1891:4 – Synonymy: Théry 1943:41.
Type locality: Corse (Saône–et–Loire) – Type depository: MHNL.
synonym: *hirticollis* Rey 1891:5 (as variety of *semicuprea*) – Synonymy: Schaefer 1937:216.
Type locality: France, L'Esterel – Type depository: MNHN.
Taxonomy: Cobos 1958a; Bílý 1997.
Redescription: Cobos 1958a:87 (♂, ♀), plate 2, figs. 10–12 (adult, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1047 (♂, ♀).
Ecology: Cobos 1958a; Bílý 1997 (distr.).
Distribution: **USA**: KS; also recorded from Europe, Asia Minor and North Africa
Host(s): larvae in *Acer* sp., *Quercus* sp. and *Salix* sp. in Europe; adults also on Malvaceae in KS.

subgenus *Anthaxia* (*Haplanthaxia*) Reitter 1911
Haplanthaxia Reitter 1911:187.
Type species: *Buprestis cichorii* Oliver 1790 (fixed by subsequent designation: Richter 1949:66).
Chrysanthaxia Richter 1949:63 – Synonymy: Nelson 1985b:135.
Type species: *Anthaxia polychloros* Abeille de Perrin 1894 (fixed by monotypy).
Cryptocratomerus Richter 1949:205 – Synonymy: Nelson 1985b:135.
Type species: *Anthaxia kiesenwetteri* Marseul 1865 (fixed by subsequent designation: Richter 1949:205).
Cryptanthaxia Richter 1949:77 – Synonymy: Nelson 1985b:135.
Type species: *Anthaxia rossica* Daniel 1903 (fixed by original designation).
Euanthaxia Richter 1949:86 – Synonymy: Obenberger 1958:228.
Type species: *Buprestis millefolii sensu* Richter 1949 (= *Anthaxia nitidula signaticollis* Krynicki 1832) (fixed by original designation).
Mesanthaxia Richter 1944:124 – Synonymy: Nelson 1985b:135.
Type species: *Anthaxia olympica* Kiesenwetter 1880 (fixed by monotypy).
Cratomerella Richter 1949:38 – Synonymy: Nelson 1985b:135.
Type species: *Anthaxia proteus* Saunders 1873 (fixed by original designation).
Taxonomy: Cobos 1958a (revision No. Amer. sp.); Nelson 1985b; Bellamy & Nelson 2002.
Redescription: Richter 1949:66; Cobos 1958a:70; Nelson 1985b:136.
Ecology: Cobos 1958a.
Key(s): Cobos 1958a:71 (No. Amer. sp.); Barr 1971:67 (Pacific NW sp.); Wellso, *et al.* 1976:9 (MI sp.); Bright 1987:151 (Canadian sp.); Downie & Arnett 1996:751 (NE No. Amer. sp.).

carolinensis Obenberger 1928:256.
Type locality: Carolina, Sylvania – Type depository: NMPC (♂).
Taxonomy: Cobos 1958a; Bílý 1997.
Ecology: Bílý 1997 (distr.); Westcott 2007b (distr.)
Distribution: **USA**: CA, (NC, PA)
Host(s): unknown.
carya Wellso & Jackman 2006:262 (♂, ♀), fig. 1 (adult).
Type locality: TX, Kimble Co., Junction – Type depository: USNM (♀).
Taxonomy: Wellso & Jackman 2006.
Ecology: Wellso & Jackman 2006 (distr. & biol.).
Distribution: **USA**: AL, GA, TX
Host(s): larvae in *Carya illinoinensis* (Wangenh.) K. Koch and *Carya* sp.
caseyi caseyi Obenberger 1914:25.
Type locality: CA – Type depository: NMPC (♀) (Lectotype not designated).
synonym: *deleta* LeConte 1878b:459 (preoccupied: *deleta* Hayden 1865).
Type locality: UT, American Fork Canyon – Type depository: MCZC 2684.
Taxonomy: Cobos 1958a (as *deleta*); Bílý 1999.

Redescription: Cobos 1958a:76 (♂, ♀), figs. 4–6 (adult & ♂ genitalia as *deleta*).
Ecology: Cobos 1958a; Bright 1987 (biol., distr.); Barr 1971; Nelson, *et al*. 1981; Bílý 1997 (distr.); Chamberlin 1925a; Leech 1959; Barr 1969a; Nelson 1987a (biol.) (all except Bílý as *deleta*).
Distribution: **Canada**: BC; **USA**: AZ, CA, ID, MT, NV, OR, UT, WA
Host(s): larvae in *Pinus coulteri* D. Don, *P. ponderosa* Laws. and *P.sabiniana* Dougl.; adults also on *Alnus rhombifolia* Nutt., *Betula occidentalis* Hook., *Calocedrus decurrens* (Torr.) Florin, *Salix* sp.; and flowers of *Adenostoma fasciculatum* H. & A., *Ceanothus cordulatus* Kell., *C. integerrimus* H. & A., *C. oliganthus* Nutt., *Fremontodendron californicum* (Torr.) Cov. and *Purshia mexicana* (D. Don) Welsh var.*stansburyana* (Torr.) Welsh.

caseyi pseudotsugae Chamberlin 1928:95 (♂, ♀).
Type locality: OR, near Ashland – Type depository: CASC 5488 (♀).
Taxonomy: Cobos 1958a; Bílý 1997.
Redescription: Cobos 1958a:text fig. 10 (adult).
Ecology: Cobos 1958a; Barr 1971; Bright 1987; Nelson 1987a; Bílý 1997 (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, CA, CO, ID, NM, NV, OR, UT, WA
Host(s): larvae in *Abies concolor* (Gord. & Glend.) Lindl., *Juniperus occidentalis* Hook., *Pinus attenuata* Lemon, *P. jeffreyi* Grev. & Balf., *P. monophylla* Torr. & Frem., *P. sabiniana* Dougl. and *Pseudotsuga menziesii* (Mirb.) Franco.; adults also on flowers of *Ceanothus integerrimus* H. & A. and *Rosa* sp.

caseyi santarosae Cobos 1958a:72, text fig. 11 (adult).
Type locality: CA, Santa Rosa Mtns. – Type depository: FMNH (♂).
Taxonomy: Cobos 1958a; Bílý 1997.
Redescription: Akiyama & Ohmomo 2000: fig. 1089 (♀) (under *deleta*).
Ecology: Cobos 1958a; Bílý 1997 (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, CA
Host(s): adults on *Pinus monophylla* Torr. & Frem.; and on flowers of *Acacia greggii* Gray, *Adenostoma fasciculatum* H. & A., *Ceanothus crassifolius* Torr., *Eriogonum fasciculatum* (Benth.) T. & G. var. *foliolosum* (Nutt.) Abrams, *E. f.* var. *polifolium* (Benth.) Torr., *E. umbellatum* Torr. and *Lotus nevadensis* (S. Wats.) Greene.

caseyi sublaevis Van Dyke 1916:406 (♂, ♀).
Type locality: CA, Tuolumne Co. – Type depository: CASC 3347 (♂).
Taxonomy: Cobos 1958a; Bílý 1997.
Redescription: Cobos 1958a:test fig. 9 (adult).
Ecology: Cobos 1958a (biol., distr.); Leech 1959 (biol.); Bílý 1997 (distr.).
Distribution: **USA**: CA
Host(s): larvae in *Pinus sabiniana* Dougl.; adults also on *Astragalus* sp., *Cercocarpus* sp. and *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh.

cuneiformis Gory 1841 [syn. of *quercata*]

cyanella Gory 1841:285, plate 47, fig. 278 (adult).
Type locality: "Amer. Bor." – Type depository: MNHN (♀).
synonym: *scoriacea* Melsheimer 1845:148 – Synonymy: Bílý 1997:19.
Type locality: PA – Type depository: MCZC.
synonym: *kaszabiana* Pochon 1967:282, fig. 11 (adult) – Synonymy: Nelson 1980a:86.
Type locality: OH, Fundort – Type depository: HNHM (♂).
Taxonomy: Wellso 1973; Nelson 1980a; Bílý 1997.
Redescription: Wellso, *et al*. 1976: fig. 5C (♂ genitalia).
Ecology: Hespenheide 1974; Nelson, *et al*. 1981; Bright 1987; Nelson 1987a; Nelson & MacRae 1990; Downie & Arnett 1996; Bílý 1997 (distr.); MacRae & Nelson 2003 (biol.); Westcott 2005 (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AL, AR, DC, FL, GA, IA, ID, IL, KY, LA, MI, MO, MS, NC, OH, OK, PA, VA, WI
Host(s): larvae in *Amelanchier arborea* (Michx. f.) Fern., *Betula nigra* L., *Cercis canadensis* L., *Gleditsia triacanthos* L. and *Vitis* sp.; adults also on *Crataegus* sp., *Ostrya virginiana* (Mill.) K. Koch, *Prunus americanus* Marsh., *Rhus aromatica* Ait. and *Ulmus rubra* Muhl.

deleta LeConte 1878 [syn. of *caseyi*]

dichroa Bílý 1991:134, figs. 28, 29 (adult, ♂ genitalia).
Type locality: LA, Baton Rouge, east B. R. Parish – Type depository: LSUC (♂).
Taxonomy: Bílý 1991; 1997; MacRae & Nelson 2003.
Redescription: MacRae & Nelson 2003:63.
Ecology: Bílý 1997 (distr.); MacRae & Nelson 2003; MacRae 2006 (biol., distr.).
Distribution: **USA**: FL, KS, LA, MO, PA, SC, TX
Host(s): larvae in *Vitis* spp.

fisheri Obenberger 1928:255.
Type locality: KS – Type depository: NMPC.
Taxonomy: Wellso, *et al*. 1976; Bílý 1997.
Redescription: Wellso, *et al*. 1976: fig. 5A (♂ genitalia); Akiyama & Ohmomo 2000: fig. 1087 (♂, ♀).
Ecology: Nelson & Westcott 1976; Wellso, *et al*. 1976 (biol.); Nelson, *et al*. 1981; Nelson 1987a; Downie & Arnett 1996; Nelson, *et al*. 1981; 1996; Bílý 1997 (distr.); MacRae 2006 (biol., distr.).
Distribution: **Canada**: ON; **USA**: AL, FL, IN, KS, LA, MI, MO, MS ,NE, OH, OK, SD
Host(s): larvae in *Prunus americana* Marsh. and *P. serotina* Ehrh.; adults also on *Acer* sp.and *Gleditsia triacanthos* L.

kaszabiana Pochon 1967 [syn. of *cyanella*]

pennsylvanica Obenberger 1914:26.
Type locality: PA – Type depository: NHMV, NMPC (Lectotype not designated).
Taxonomy: Cobos 1958a; Bílý 1997.
Ecology: Bílý 1997 (distr.).
Distribution: **USA**: PA.
Host(s): unknown.

pseudotsugae Chamberlin 1928 [ssp. of *caseyi*]

quercata (Fabricius) 1801:216 (*Buprestis*).
Type locality: Carolinae – Type depository: UZMC.
synonym: *cuneiformis* Gory 1841:290, plate 48, fig. 248 (adult) – Synonymy: Crotch 1873:89.
Type locality: "Amer. Bor." – Type depository: MNHN.
Taxonomy: Cobos 1958a; Bílý 1997.
Redescription: Cobos 1958a:73 (♂, ♀), plate 1, figs. 1–3 (adult, ♂ genitalia); Wellso, *et al*. 1976: fig. 5D (♂ genitalia); Akiyama & Ohmomo 2000: fig. 1086 (♂, ♀).
Ecology: Knull 1920; Howden & Vogt 1951; Hespenheide 1974 (biol.); Cobos 1958a; Nelson, *et al*. 1981; Bright 1987; Nelson 1987a; Downie & Arnett 1996; Bílý 1997 (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AL, AR, CT, DC, FL, GA, IA, IL, IN, KY, LA, MA, MD, MI, MO, MS, MT, NC, NH, NJ, NY, OH, OK, PA, RI, SC, TX, VA, WI, WV
Host(s): larvae in *Cercis canadensis* L., *Crataegus chrysocarpa* Ashe, *Larix laricina* (DuRoi) K. Koch, *Picea mariana* B.S.P., *Pinus echinata* Mill., *P. rigida* Mill., *P. strobus* L. and *P. taeda* L.; adults also on *Carya alba* (L.) Nutt., *Corylus americana* Walt., *Pinus virginiana* Mill., *Prunus americana* Marsh., *Quercus coccinea* Muenchh., *Q. laurifolia* Michx., *Q. palustris* Muenchh., *Q. rubra* L., *Q. stellata* Wangenh., *Q. velutina* Lam. and *Sassafrass albidum* (Nutt.) Nees.

quercicola Wellso 1974:165 (♂, ♀), figs. 1–3 (♂ genitalia, protibia).
Type locality: TX, near College Station, Easterwood Airport – Type depository: USNM 73571 (♂).
Taxonomy: Wellso 1974.
Ecology: Wellso 1974; Nelson, *et al*. 1981; Bright 1987; Nelson 1987a; MacRae 1991; Downie & Arnett 1996 (biol., distr.); Peck & Thomas 1998 (distr.).
Distribution: **USA**: FL, GA, MI, MO, MS, OK, TX
Host(s): larvae in *Quercus sinuata* Walt.; adults also on *Gleditsia triacanthos* L., *Quercus palustris* Muenchh. and *Q. velutina* Lam.

santarosae Cobos 1958 [ssp. of *caseyi*]

scoriacea Melsheimer 1845 [syn. of *cyanella*]

subaenea LeConte 1860 [syn. of *viridifrons*]

sublaevis Van Dyke 1916 [ssp. of *caseyi*]

viridicornis (Say) 1823:162 (*Buprestis*).
Type locality: MO – Type depository: destroyed. ANSP (teste Bílý 1997).
Taxonomy: Cobos 1958a; Wellso, *et al*. 1976; Bílý 1997.

Redescription: Wellso, *et al*. 1976: fig. 5F (♂ genitalia).
Ecology: Knull 1922; Nelson, *et al*. 1981; Nelson 1987a; Bright 1987; Dearborn & Donahue 1993 (biol.); Downie & Arnett 1996; Nelson, *et al*. 1996; Westcott 2001b (distr.); MacRae 2006 (biol., distr.).
Distribution: **Canada**: ON; **USA**: AR, CO, CT, DC, FL, GA, IA, IL, IN, KY, LA, MA, ME, MI, MO, MS, NC, NE, NJ, NY, OH, OK, PA, SC, SD, TN, TX, VA, WV
Host(s): larvae in *Quercus* sp., *Salix caroliniana* Michx., *S. exigua* Nutt., *S. nigra* Marsh.; adults also on *Abies* sp., *Populus* sp. and S*alix babylonica* L.

viridifrons Gory 1841:284, plate 47, fig. 277 (adult).
Type locality: "Amer. Bor." – Type depository: MNHN.
synonym: *subaenea* LeConte 1860:216 – Synonymy: Crotch 1873:89.
Type locality: Middle States – Type depository: MCZC 2685.
misidentification: *viridicornis* of authors (in part), not *viridicornis* Say 1823.
Taxonomy: Wellso, *et al*. 1976; Bílý 1997.
Redescription: Wellso, *et al*. 1976: fig. 5G (♂ genitalia); Akiyama & Ohmomo 2000: fig. 1088 (♂, ♀).
Ecology: Knull 1920; 1922; Hespenheide 1974 (as *viridicornis*); Nelson & Westcott 1976; Nelson, *et al*. 1981; Nelson 1987a; Nelson & MacRae 1990 (biol.); Downie & Arnett 1996; Bílý 1997 (distr.); MacRae 2006 (biol., distr.).
Distribution: **Canada**: MB, ON, PQ; **USA**: AR, CT, DC, FL, GA, IA, IL, IN, KS, KY, LA, MA, MD, ME, MI, MO, MS, NC, ND, NE, NH, NJ, NY, OK, PA, SC, SD, TN, TX, VA, WV
Host(s): larvae in *Amelanchier arborea* (Michx. f.) Fern., *Carya alba* (L.) Nutt., *C. glabra* (Mill.) Sweet, *C. illinoinensis* (Wangenh.) K. Koch, *C. ovata* (Mill.) K. Koch, *Morus* sp., *Ulmus alata* Michx., *U. americana* L., *U. crassifolia* Nutt. and *U. rubra* Muhl.; adults also on *Acer saccharum* Marsh., *Asimina triloba* (L.), Dunal, *Carya cordiformis* (Wangenh.) K. Koch, *Celtis occidentalis* L., *Cercis canadensis* L., *Cornus racemosa* Lam., *Crataegus* sp., *Fraxinus americana* L., *Gleditsia triacanthos* L., *Juglans nigra* L., *Malus* sp., *Quercus alba* L., *Q. rubra* L., *Rubus* sp. and *Salix* sp.

subgenus *Anthaxia* (*Melanthaxia*) Richter 1944
Melanthaxia Richter 1949:102.
Type species: *Anthaxia godeti* Gory & Laporte 1839 (fixed by original designation).
Taxonomy: Nelson 1985b; Bílý 1997; Bellamy & Nelson 2002.
Redescription: Nelson 1985b:136.
Key(s): Obenberger 1928:247 (No. Amer. sp.); Cobos 1958a:84 (N. Amer. sp.); Barr 1971:67 (Pacific NW sp.); Wellso, *et al*. 1976:9 (MI sp.); Bright 1987:141 (Canada sp.); Downie & Arnett 1996:751 (NE No. Amer. sp.).

aeneogaster Gory & Laporte 1839:32, plate 7, fig. 44 (adult).
Type locality: CA. Due to confusion about the limits of this species, some of the distributional and host records might refer to other species – Type depository: MNHN.
Immature stages: Burke 1917a: plate 3, fig. 2 (larva).
Taxonomy: Cobos 1958a; Bílý 1997.
Redescription: Cobos 1958a:106 (♂, ♀), plate 7, figs. 37–39 (adult, ♂ genitalia).
Ecology: Cobos 1958a; Barr 1971 (biol., distr.); Bílý 1997 (distr.).
Distribution: **Canada**: BC; **USA**: AZ, CA, ID, NM, OR, UT, WA
Host(s): larvae in *Fremontodendron californicum* (Torr.) Cov. and *Pinus ponderosa* Laws.; adults also on *Cercocarpus betuloides* T. & G., *Quercus kelloggii* Newb., *Q. wislizenii* A. DC. and on flowers of *Encelia farinosa* T. & G., *Eriodictyon trichocalyx* Heller, *Eriophyllum confertiflorum* (DC.) Gray, *Helianthus gracilentus* Gray, *Lupinus* sp., *Potentilla* sp., *Ranunculus* sp. and *Sphaeralcea ambigua* Gray.

aenescens Casey 1884:175.
Type locality: CA – Type depository: USNM 35860.
Taxonomy: Cobos 1958a; Bílý 1997.
Redescription: Cobos 1958a:99 (♂, ♀), plate 5, figs. 25–27 (adult, ♂ genitalia).
Ecology: Cobos 1958a; Barr 1971; Nelson, *et al*. 1981 (biol.); Nelson 1987a (biol., distr.); Bílý 1997 (distr.).
Distribution: **Canada**: BC; **USA**: CA, ID, MT, OR, WA
Host(s): larvae in *Calocedrus decurrens* (Torr.) Florin, *Pseudotsuga menziesii* (Mirb.) Franco

and *Sequoiadendrom giganteum* (Lindl.) Buchh.; adults also on flowers of *Taraxacum* sp. and Brassicaceae.

barri Bílý 1995a:53 (replacement name for *confusa* Barr 1971).
synonym: *confusa* Barr 1971:72 (preoccupied: *confusa* Gory 1841:296).
Type locality: OR, Grants Pass – Type depository: CASC 11142 (♂).
Taxonomy: Barr 1971; Bílý 1997.
Ecology: Barr 1971; Bílý 1997 (distr.).
Distribution: **USA**: CA, OR
Host(s): unknown.

californica Obenberger 1914:26.
Type locality: CA – Type depository: NHMV.
Taxonomy: Cobos 1958a; Bílý 1997.
Redescription: Cobos 1958a:102 (♂, ♀), plate 6, figs. 31–33 (adult, ♂ genitalia).
Ecology: Cobos 1958a (biol., distr.); Barr 1971; Bílý 1997 (distr.).
Distribution: **USA**: AZ, CA, NM, NV, OR.
Host(s): larvae in *Pinus ponderosa* Laws.; adults also on *Calocedrus decurrens* (Torr.) Florin, *Quercus kelloggii* Newb. and *Rhamnus californica* Esch.; and on flowers of *Achillea millefolium* L., *Ceanothus cordulatus* Kell., *C. integerrimus* H. & A., *Cryptantha* sp., *Draperia systyla* (Gray) Torr., *Eriodictyon trichocalyx* Heller, *Eriophyllum confertiflorum* (DC.) Gray, *Lupinus* sp. and *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh.

confusa Barr 1971 [syn. of *barri*]

cupriola Barr 1971:69.
Type locality: ID, Franklin Co., 21 mi NE Preston – Type depository: CASC 11143 (♂).
Taxonomy: Barr 1971; Bílý 1997.
Ecology: Barr 1971 (biol., distr.); Bílý 1997 (distr.).
Distribution: **USA**: CA, ID
Host(s): adults on flowers of *Agoseris grandiflora* (Nutt.) Greene, *Chaenactis douglasii* (Hook.) H. & A., *Eriodictyon trichocalyx* Heller, *Hackelia* sp., *Prunus virginiana* L., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh, *Salvia apiana* Jeps. and *Senecio* sp.

emarginata Barr 1971:69.
Type locality: OR, Prospect – Type depository: CASC 11141.
Taxonomy: Barr 1971; Bílý 1997.
Ecology: Bílý 1997 (distr.).
Distribution: **USA**: OR
Host(s): unknown.

embrikstrandella Obenberger 1936d:135.
Type locality: CA, San Diego Co., Cuyamaca – Type depository: NMPC.
Taxonomy: Bílý 1997.
Ecology: Bílý 1997 (distr.).
Distribution: **USA**: CA
Host(s): unknown.

exasperans Cobos 1958a:116 (♂, ♀), figs. 49–51 (adult, ♂ genitalia).
Type locality: CA, Shasta Springs – Type depository: CASC 8108 (♂).
Taxonomy: Cobos 1958a; Bílý 1997.
Ecology: Cobos 1958a (distr.).
Distribution: **USA**: CA
Host(s): unknown.

expansa LeConte 1857b:44.
Type locality: OR – Type depository: MCZC 2681.
synonym: *foveicollis* LeConte 1860:215 – Synonymy: Cobos 1959a:91.
Type locality: CA, Sacramento Valley – Type depository: MCZC 2679.
Taxonomy: Cobos 1958a; Nelson 1985b; Bílý 1997.
Redescription: Wellso, *et al*. 1976: fig. E (♂ genitalia).
Ecology: Bílý 1997 (distr.).
Distribution: **USA**: AZ, CA, NV, OR, WA
Host(s): unknown.

falsula Obenberger 1928 [syn. of *prasina*]
foveicollis LeConte 1860 [syn. of *expansa*]
furnissi Barr 1971:71.
Type locality: ID, Valley Co., Krassel Rang. Sta., S Fork Salmon River – Type depository: CASC 11140 (♂).
Taxonomy: Barr 1971; Bílý 1997.
Ecology: Barr 1971 (biol., distr.); Bílý 1997 (distr.).
Distribution: **USA**: ID
Host(s): larvae in *Pseudotsugae menziesii* (Mirb.) Franco.
hatchi Barr 1971:71 & 72 (♀).
Type locality: WA, Whitman Co., Wawawai – Type depository: USNM (♂).
Taxonomy: Barr 1971; Bílý 1997.
Ecology: Nelson, *et al.* 1981 (biol., distr.); Bílý 1997 (distr.).
Distribution: **USA**: CA, OR, WA
Host(s): adults on flowers of *Rosa* sp.
helferi Cobos 1958 [syn. of *helferiana*]
helferiana Bílý 1995a:53 (replacement name for *helferi* Cobos 1958).
synonym: *helferi* Cobos 1958a:115 (♂, ♀), figs. 46–48 (adult, ♂ genitalia) (preoccupied: *helferi* Obenberger 1928:238).
Type locality: UT, Zion Cyn. – Type depository: CASC 8106 (♂).
Taxonomy: Cobos 1958a:116 (♀); Bílý 1995a.
Ecology: Horning & Barr 1970 (biol. as *helferi*); Barr 1971 (distr. & biol. as *helferi*); Bílý 1997 (distr.).
Distribution: **USA**: CA, UT
Host(s): adults on flowers *Eriogonum ovalifolium* Nutt. var. *depressum* Blank. and *Heterotheca villosa* (Pursh) Shinners.
hurdi Cobos 1958a:112 (♂, ♀), figs. 43–45 (adult, ♂ genitalia).
Type locality: CA, Eldorado Co., Echo Lake – Type depository: CASC 9484 EMEC 69307 (♂).
Taxonomy: Cobos 1958a; Bílý 1997.
Ecology: Cobos 1958a; Bílý 1997 (distr.).
Distribution: **USA**: CA
Host(s): unknown.
imperfecta LeConte 1860:215.
Type locality: NM, Santa Fe – Type depository: MCZC 2683
Taxonomy: Nelson 1985b; Bílý 1997.
Ecology: Bílý 1997 (distr.).
Distribution: **USA**: AZ, CA, NM, NV, OR
Host(s): unknown.
inornata (Randall) 1838:4 (*Buprestis*).
Type locality: ME, near Moosehead Lake – Type depository: Probably destroyed.
misidentification: *aeneogaster* of authors (in part), not *aeneogaster* Gory & Laporte 1839.
Taxonomy: Cobos 1958a; Nelson 1985b:137; Bílý 1997.
Redescription: Cobos 1958a:91 (♂, ♀), plate 3, figs. 16–18 (adult & ♂ genitalia as *expansa*).
Ecology: Cobos 1958a; Horner & Barr 1970; Barr; 1971; Nelson & Westcott 1976; Nelson, *et al.* 1981 (distr.& biol. as *expansa*); Dearborn & Donahue 1993 (biol.); Bílý 1997 (distr.).
Distribution: **Canada**: AB, BC, MB, ON, PQ; **USA**: CA, CO, ID, ME, MI, MT, ND, NV, NY, OH, OR, SD, UT, WA, WI, WY
Host(s): adults on *Pinus* sp.; also flowers of *Arnica mollis* Hook., *Heterotheca villosa* (Pursh) Skinners, *Ranunculus acris* L., *Rosa* sp. and *Tragopogon pratensis* L.
knulli Obenberger 1928:256, figs. 6, 7 (♂ genitalia, head).
Type locality: CA, Yosemite Valley – Type depository: NMPC.
Taxonomy: Cobos 1958a; Bílý 1997.
Ecology: Bílý 1997 (distr.).
Distribution: **USA**: AZ, CA, NV
leechi Cobos 1958a:89 (♂, ♀), figs. 13–15 (adult, ♂ genitalia).
Type locality: CA, Riverside – Type depository: CASC 8107 (♂).
Taxonomy: Cobos 1958a: Bílý 1997.

Ecology: Bílý 1997 (distr.); Leech 1959 (biol.).
Distribution: **USA**: CA
Host(s): adults on *Pinus lambertiana* Dougl.

nanula Casey 1884:174.
Type locality: CA – Type depository: USNM 35839 (Lectotype not designated).
Taxonomy: Cobos 1958a; Bílý 1997.
Redescription: Cobos 1958a:118 (♂, ♀), figs. 52–54 (adult, ♂ genitalia).
Ecology: Nelson 1987a (biol.); Bílý 1997 (distr.).
Distribution: **USA**: AZ, CA, NV, UT
Host(s): adults on flowers of *Adenostoma fasciculatum* H. & A., *Ceanothus* sp., *Cryptanthus* sp., *Encelia farinosa* T. & G., *Eriodictyon trichocalyx* Heller, *Eriophyllum confertiflorum* (DC.) Gray and *Salvia apiana* Jeps.

neofunerula Obenberger 1942b:129.
Type locality: NH, Charlestown – Type depository: NMPC.
Taxonomy: Bílý 1997.
Distribution: **USA**: NH
Host(s): unknown.

nevadensis Obenberger 1928:257.
Type locality: NV – Type depository: NMPC.
Taxonomy: Cobos 1958a; Barr 1971; Bílý 1997.
Ecology: Bílý 1997 (distr.).
Distribution: **USA**: NV
Host(s): unknown.

oregonensis Obenberger 1942b:127.
Type locality: OR, Klamath Co., Aspen Lake – Type depository: NMPC (♂).
Taxonomy: Bílý 1997.
Ecology: Bílý 1997 (distr.).
Distribution: **USA**: OR
Host(s): unknown.

porella Barr 1974:2 (♂, ♀).
Type locality: ID, Adams Co., 1 mi S Mesa – Type depository: CASC 12299 (♂).
Taxonomy: Bílý 1997.
Ecology: Horning & Barr 1970; Barr 1971 (distr. & biol. as *simiola*); Bílý 1997 (distr.).
Distribution: **Canada**: BC; **USA**: ID, OR, WA
Host(s): adults on flowers *Agoseris retrorsa* (Benth.) Greene, *Eriogonum ovalifolium* Nutt. var. *depressum* Blank., *Chrysopsis villosa Eriophyllum lanatum* (Pursh) James Forbes and *Heterotheca villosa* (Pursh) Skinners.

prasina Horn 1882:108.
Type locality: CA, Yosemite Valley – Type depository: MCZC 33790 (♂) (Lectotype designation: Nelson 1980a:86).
synonym: *falsula* Obenberger 1928:257 (as variety of *prasina*) - Synonymy: Cobos 1958a:100.
Type locality: CA. - Type depository: NMPC.
Taxonomy: Cobos 1958a; Bílý 1997.
Redescription: Cobos 1958a:100 (♂, ♀), figs. 28–30 (adult, ♂ genitalia).
Ecology: Barr 1971 (biol., distr.); Bílý 1997 (distr.); Westcott 2005 (distr.).
Distribution: **Canada**: BC; **USA**: CA, ID, MT, OR
Host(s): adults on *Ceanothus integerrimus* H. & A. and *Ranunculus* sp.

retifer LeConte 1860:215.
Type locality: NM, Santa Fe – Type depository: MCZC 2680.
misspelling: *retifera* of authors (*lapsus calami*).
Taxonomy: Cobos 1958a; Bílý 1997.
Redescription: Cobos 1958a:95 (♂, ♀), figs. 19–21 (adult, ♂ genitalia).
Ecology: Cobos 1958a; Barr 1971 (biol., distr.); Bílý 1997 (distr.).
Distribution: **USA**: AZ, CA, ID, NM, NV, OR, UT
Host(s): larvae in *Cupressus goveniana* Gord., *C. sargentii* Jeps. and *Fremontodendron californicum* (Torr.) Cov.; adults also on *Ceanothus oliganthus* Nutt., *Cercocarpus betuloides* T. & G.,

Eriodictyon sp., *Eriophyllum confertiflorum* (DC.) Gray, *Pinus attenuata* Lemmon, *P. contorta* Loud var. *murrayana* (Grev. & Balf.) Critchf., *P. ponderosa* Laws., *Purshia mexicana* (D. Don) Welsh var.*stansburyana* (Torr.) Welsh and *Quercus kelloggii* Newb.

sculpturata Barr 1971:68.
Type locality: OR, McMinnville – Type depository: CASC 11144.
Taxonomy: Barr 1971; Bílý 1977.
Ecology: Bílý 1977 (distr.).
Distribution: **USA**: OR
Host(s): unknown.

serripennis Obenberger 1936d:136.
Type locality: UT, Iron Co., Cedar City – Type depository: NMPC.
Taxonomy: Cobos 1958a; Bílý 1997.
Redescription: Cobos 1958a:105 (♂, ♀), figs. 34–36 (adult, ♂ genitalia).
Ecology: Cobos 1958a (biol., distr.); Bílý 1997 (distr.).
Distribution: **USA**: AZ, CA, UT
Host(s): adults on flowers of *Eriodictyon* sp., *Lotus* sp., *Opuntia* sp., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh and *Sphaeralcea ambigua* Gray.

simiola Casey 1884:175.
Type locality: CA – Type depository: USNM 35858.
synonym: *vandykeana* Obenberger 1936d:13 – Synonymy: Cobos 1958a:110.
Type locality: CA, Carville – Type depository: NMPC.
Taxonomy: Cobos 1958a; Bílý 1997.
Redescription: Cobos 1958a:110 (♂, ♀), figs. 40–42 (adult, ♂ genitalia).
Ecology: Cobos 1958a; Bílý 1997 (distr.).
Distribution: **USA**: AZ, CA, ID, NV, OR, UT
Host(s): adults on *Calocedrus decurrens* (Torr.) Florin, *Ceanothus oliganthus* Nutt. *Prunus emarginata* (Hook.) Walp.; and flowers of *Coreopsis bigelovii* (Gray) Hall.

strigata LeConte 1859:71.
Type locality: CA, Fort Tejon – Type depository: MCZC 2682.
synonym: *fallaciosa* Obenberger 1913b:68 – Synonymy: Bílý 1996:30.
Type locality: "Turkestan"? – Type depository: NMPC.
synonym: *grossa* Obenberger 1928:257 (as subspecies of *strigata*) – Synonymy: Bílý 1996:30.
Type locality: CA – Type depository: NMPC.
Taxonomy: Cobos 1958a; Bílý 1997.
Ecology: Bílý 1977 (distr.).
Distribution: **USA**: AZ, CA, ID, NV, OR, UT
Host(s): unknown.

subprasina Cobos 1958a:97.
Type locality: CA, Giant Forest, Tulare – Type depository: CASC 8109.
Taxonomy: Cobos 1958a; Bílý 1997.
Ecology: Bílý 1997 (distr.).
Distribution: **USA**: CA
Host(s): unknown.

tarsalis Barr 1971:68.
Type locality: ID, Latah Co., Harvard – Type depository: CASC 11139.
Taxonomy: Barr 1971; Bílý 1997.
Ecology: Bílý 1997 (distr.).
Distribution: **USA**: ID
Host(s): unknown.

vandykeana Obenberger 1936 [syn. of *simiola*]

wallowae Obenberger 1942b:128.
Type locality: OR, Wallowa Mtns., Lake Wallowa – Type depository: NMPC.
Taxonomy: Barr 1971; Bílý 1997.
Ecology: Bílý 1997 (distr.).
Distribution: **USA**: OR
Host(s): unknown.

Tribe Xenorhipidini Cobos 1986
Xenorhipini Cobos 1986:136.
Type genus: *Xenorhipis* LeConte 1866.
Classification: Cobos 1986; Hołyński 1993; Bílý 2000; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Key(s): Bellamy & Nelson 2002:104 (genera).

Subtribe Xenorhipidina Cobos 1986
Xenorhipidina: Hołyński 1988:52.
Type genus: *Xenorhipis* LeConte 1866.
Classification: Hołyński 1988; 1993; Volkovitsh 2001; Bellamy 2006.

Genus *Hesperorhipis* Fall 1930
Hesperorhipis Fall 1930:74.
Type species: *Hesperorhipis albofasciata* Fall 1930 (fixed by original designation).
Taxonomy: Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

albofasciata Fall 1930:75.
Type locality: CA, Fort Tejon – Type depository: MCZC 24437 (♂).
Distribution: **USA**: CA
Host(s): larvae in *Juglans regia* L. and *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.); adults also on "mistletoe".
albopennis Knull 1951 [ssp. of *mirabilis*]
californica Knull 1947 [ssp. of *hyperbola*]
hyperbola californica Knull 1947a:70, figs. 4, 5 (parts, adult ♂).
Type locality: CA, Santa Rosa Mtns., 4000' – Type depository: FMNH (♂).
Ecology: Bellamy 2008 (biol.).
Distribution: **USA**: CA
Host(s): unknown.
hyperbola hyperbola Knull 1938c:137, fig. 3 (adult ♂).
Type locality: AZ, Prescott National Forest – Type depository: FMNH (♂).
Distribution: **USA**: AZ
Host(s): adults on *Quercus turbinella* Greene.
jacumbae Knull 1954b:294 (♂, ♀), figs. 1, 3, 4 (♀, ♂, parts).
Type locality: CA, San Diego Co., Jacumba – Type depository: FMNH (♂).
Redescription: Akiyama & Ohmomo 2000: fig. 1006 (♂, ♀).
Distribution: **USA**: CA
Host(s): larvae in *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.).
mirabilis albopennis Knull 1951:87, fig. 1 (adult ♂).
Type locality: CA, Riverside Co., Blythe – Type depository: FMNH (♂).
Redescription: Akiyama & Ohmomo 2000: fig. 1005–3 (♂).
Ecology: Bellamy 2008 (biol.).
Distribution: **USA**: CA
Host(s): adults on dead *Prosopis* sp.
mirabilis mirabilis Knull 1937d:303, fig. 2 (adult ♂).
Type locality: AZ, Gila Mtns. – Type depository: FMNH (♂).
Redescription: Akiyama & Ohmomo 2000: fig. 1005 (♂, ♀).
Distribution: **USA**: AZ, CA
Host(s): larvae in *Salix* sp.; adults also on *Acacia* sp.

Genus *Xenorhipis* LeConte 1866
Xenorhipis LeConte 1866b:384.
Type species: *Xenorhipis brendeli* LeConte 1866 (fixed by monotypy).
Lamesis Westwood 1883:67 (generic identity verified: Bellamy 1998) – Synonymy: Kerremans 1903:162.
Type species: *Lamesis suturalis* Westwood 1883 (fixed by monotypy).
Isophaenus Waterhouse 1889:175 – Synonymy: Bellamy 2005:26.
Type species: *Isophaenus parallelus* Waterhouse 1889 (fixed by monotypy).

Taxonomy: Volkovitsh 2001; Bellamy & Nelson; Bellamy 2003a; 2005.
Ecology: Chamberlin 1926 (biol., distr.); Burke 1917a (biol.).
Key(s): Nelson 1968:96 (♂).

brendeli LeConte 1866:384.
Type locality: IL, Peoria – Type depository: MCZC 8021 (♂).
synonym: *vejdovskyi* Obenberger 1939b:338 – Synonymy: Helfer 1952:188.
Type locality: CT – Type depository: NMPC (♂).
Redescription: Horn 1882:111, plate 4 (♂, ♀); Knull 1925: plate 6, fig. 1 (adult ♂); Good 1925: pl.11 (wing); Akiyama & Ohmomo 2000: fig. 1002 (♂, ♀).
Ecology: Cooper 1933; Downie 1958; Wellso 1966; Nelson, *et al.* 1981; 1987a; Peck & Thomas 1998 (distr.); MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AL, CT, FL, GA, IA, IL, IN, MA, MO, NC, NY, OH, OK, PA, TX
Host(s): larvae in *Betula nigra* L., *Carya illinoinensis* (Wangenh.) K. Koch, *C. laciniosa* (Michx. f.) G. Don, *C. ovata* (Mill.) K. Koch., *Quercus alba* L.; adults also on *Gleditsia triacanthos* L.
hidalgoensis Knull 1952a:177 (♂, ♀).
Type locality: TX, Hidalgo Co. – Type depository: FMNH (♀).
Taxonomy: Knull 1952a.
Ecology: Nelson, *et al.* 1981 (distr.).
Distribution: **USA**: TX; also recorded from Mexico.
osburni Knull 1936:73 (♂, ♀).
Type locality: TX, Davis Mtns. – Type depository: FMNH (♂).
Ecology: Knull 1936 (biol.); 1964 (distr.).
Distribution: **USA**: TX
Host(s): larvae in *Acacia constricta* Benth.
vejdovskyi Obenberger 1939 [syn. of *brendeli*]

Subtribe Trichinorhipidina Bellamy 2006
Trichinorhipidina Bellamy 2006:139.
Type genus: *Trichinorhipis* Barr 1948.

Genus *Trichinorhipis* Barr 1948
Trichinorhipis Barr 1948:70.
Type species: *Trichinorhipis knulli* Barr 1948 (fixed by original designation).
Taxonomy: Barr 1948; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a; 2006.
Redescription: Nelson 1962 (♀).
Ecology: Nelson, *et al.* 1981 (biol.).

knulli Barr 1948:71.
Type locality: CA, Riverside Co., Painted Cyn. – Type depository: CASC 8515 (♂)
Taxonomy: Barr 1948.
Redescription: Nelson 1962 (♀); Helfer 1970:100 fig. (adult ♂); Nelson, *et al.* 1981; Akiyama & Ohmomo 2000: fig. 1003 (♂, ♀).
Ecology: Nelson 1962; Nelson, *et al.* 1981; Bellamy 1982 (biol.); 2006 (biol., distr.); 2008 (biol).
Distribution: **USA**: CA
Host(s): larvae in *Simmondsia chinensis* (Link) C. Schneid.; adults also on *Acacia greggii* Gray and *Prosopis glandulosa* Torr. var. *torreyana* (L. Benson) ♂ Johnston.

Tribe Melanophilini Bedel 1921
Melanophilini Bedel 1921:171.
Type genus: *Melanophila* Eschscholtz 1829.
Anthaxiae LeConte 1861 (part).
Anthaxini Kerremans 1893 (part).
Anthaxites Kerremans 1903 (part).
Buprestini Arnett 1962 (part).
Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1903; Sloop 1937; Arnett 1962;

Nelson 1982; Bellamy 1985; Cobos 1987; Hołyński 1993; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Key(s): Kerremans 1893:109; 1903:154; Sloop 1937:4; Arnett 1962:484; Cobos 1987:49; Hołyński 1993:33 (subtribes); Bellamy & Nelson 2002:104 (genera).

Genus *Melanophila* Eschscholtz 1829

Melanophila Eschscholtz 1829:9.

Type species: *Buprestis acuminata* DeGeer 1774 (fixed by subsequent designation: Opinion 1826, ICZN 1996b:60).

Apatura Laporte & Gory 1837:1 (preoccupied: *Apatura* Fabricius 1807, Lepidoptera) – Synonymy: Lacordaire 1857:47.

Type species: *Buprestis appendiculata* Fabricius 1792 (= *acuminata* (DeGeer 1774)) (fixed by subsequent designation: Desmarest 1841:641).

Oxypteris Kirby 1837:160 (as subgenus of *Buprestis*) – Synonymy: Lacordaire 1857:47.

Type species: *Buprestis appendiculata* Fabricius 1792 (= *acuminata* (DeGeer 1774)) (fixed by original designation).

Trachypteris sensu Akiyama & Ohmomo 2000 (part).

Taxonomy: Sloop 1937 (revision No. Amer. spp.); Cobos 1987 (revision world spp.); Volkovish, 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Sloop 1837:4; Cobos 1987:52.

Ecology: Sloop 1937; Cobos 1987 (biol., distr.).

Key(s): Sloop 1937:6 (No. Amer.); Wellso, *et al*. 1976:9 (MI); Bright 1987:125 (Canada & AK); Cobos 1987:56 (world); MacRae 1991:111 (MO).

acuminata (DeGeer) 1774:133 (*Buprestis*).

Type locality: Sweden – Type depository: NHRS (♀).

synonym: *acuta* (Gmelin) 1790:1939 (*Buprestis*) – Synonymy: Saunders 1871:48.

Type locality: Europe – Type depository: unknown.

synonym: *appendiculata* (Fabricius) 1792:210 (*Buprestis*) – Synonymy: Saunders 1871:48.

Type locality: Germany – Type depository: type lost.

synonym: *morio* (Fabricius) 1792:210 (*Buprestis*) – Synonymy: Saunders 1871:48.

Type locality: Hafniae Dom. Lund – Type depository: NHRS (♀).

synonym: *longipes* (Say) 1823:163 (*Buprestis*) – Synonymy: Burke 1919a:107.

Type locality: PA & W. states – Type depository: types destroyed.

synonym: *immaculata* Mannerheim 1837:70 – Synonymy: Burke 1919a:107.

Type locality: "Amer. Bor." – Type depository: UZMH (♂) (Lectotype designation: Nelson 1976:167).

synonym: *anthaxoides* Marquet 1870:368 – Synonymy: Obenberger 1930:443.

synonym: *opaca* LeConte 1860:213 – Synonymy: Cobos 1987:61.

Type locality: GA – Type depository: MCZC 2676.

Type locality: France, Hyères; Spain l'Escorial – Type depository: type lost.

synonym: *obscurata* Lewis 1893:331 – Synonymy: Théry 1942:71.

Type locality: Japan: Yezo (= Hokkaido), Otaru & Kiushiu, Higo – Type depository: BMNH.

misidentification: *pecchiolii* of authors, not *pecchiolii* Gory & Laporte 1839.

misidentification: *hungarica* of authors, not *hungarica* Csiki 1905.

Immature stages: Benoit 1966b: figs. 1–4, 9–14 (larva).

Taxonomy: Sloop 1937; Nelson 1980a; Cobos 1987.

Redescription: Sloop 1937:8, figs. 9, 18, 20 (♂ genitalia, wing, thorax); Barr 1971: plate 7, fig. 4 (adult); Cobos 1987:61; Akiyama & Ohmomo 2000: fig. 964 (♂, ♀).

Ecology: Burke 1919a; Sloop 1937; Benoit 1965 (biol.); Cobos 1987 (biol., distr.); Davies 1991; Dearborn & Donahue 1993 (distr.).

Distribution: **Canada**: AB, BC, MB, NF, NT, ON, PQ, SK, YT; **USA**: AK, AL, AZ, CA, CO, CT, DC, FL, GA, IA, ID, IL, IN, KS KY, ME, MI, MN MT, NE, NC, NH, NJ, NM, NY, OR, PA, SD, TX, UT, VA, WA, WI, WY; also recorded from Central America, the West Indies and the Old World.

Host(s): larvae in *Abies balsamea* (L.) Mill., *A. grandis* (Dougl.) Lindl., *Betula alleghaniensis* Britt., *Cupressus macrocarpa* Gord., *Picea glauca* (Moench) Voss., *Pinus contorta* Loud. var. *murrayana*

(Grev. & Balf.) Critchf., *P. resinosa* Ait., *P. strobes* L. and *Thuja occidentalis* L.; adults also on *Picea engelmannii* Engelm., *P. sitchensis* (Bong.) Carr., *Pinus ponderosa* Laws. and *Thuja plicata* D. Don.

acuta (Gmelin 1790) [syn. of *acuminata*]

anthaxoides Marquet 1870 [syn. of *acuminata*]

appendiculata (Fabricius 1792) [syn. of *acuminata*]

atropurpurea (Say) 1823:160 (*Buprestis*).

Type locality: "Arkansa" – Type depository: type destroyed.

misidentification: *acuminata* of authors, not *acuminata* DeGeer 1774.

misidentification: *occidentalis* of authors, not *occidentalis* Obenberger 1928.

Taxonomy: Sloop 1937; Cobos 1987.

Redescription: Sloop 1937:10, fig. 10 (♂ genitalia); Cobos 1987:70, figs. 27, 28 (silhouette ♂, ♂ genitalia).

Ecology: Sloop; 1937; Barr & Linsley 1947; Cobos 1987 (biol., distr.).

Distribution: **USA**: AR, AZ, CA, CO, KS, NM, OR, TX, UT; also recorded from Mexico.

Host(s): larvae in *Abies* sp., *Pinus ponderosa* Laws. and *Pseudotsuga menziesii* (Mirb.) Franco.

consputa LeConte 1857:44.

Type locality: Northern CA – Type depository: MCZC 2677.

unavailable name: *isolata* Obenberger 1928:209 (as aberration of *consputa*) – Synonymy: Sloop 1937:6.

Type locality: CA – Synonymy: Sloop 1937:6 – Type depository: NMPC

unavailable name: *monochroa* Obenberger 1928:209 (as aberration of *consputa*) – Synonymy: Sloop 1937:6.

Type locality: CA. – Type depository: NMPC

unavailable name: *chamberlini* Obenberger 1944:318 (as aberration of *consputa*).

Type locality: CA – Type depository: NMPC.

unavailable name: *franciscana* Obenberger 1944:318 (as aberration of *consputa*).

Type locality: CA, San Francisco – Type depository: NMPC.

unavailable name: *occitanea* Obenberger 1944:318 (as aberration of *consputa*).

Type locality: CA – Type depository: NMPC

Taxonomy: Sloop 1937; Cobos 1987.

Redescription: Sloop 1937:6, figs. 11, 22 (♂ genitalia, elytra); Helfer 1970:98 (adult); Cobos 1987:78; Akiyama & Ohmomo 2000: fig. 959 (♂, ♀).

Ecology: Ricksecker 1885; Sloop 1937; Beer 1940; 1949; Linsley 1943; Barr & Linsley 1947; Linsley & Hurd 1957 (biol.); Barr 1969a; Kirk & Balsbaugh, Jr. 1975 (distr.); Cobos 1987 (biol., distr.).

Distribution: **USA**: AZ, CA, CO, ID, NV, OR, SD, UT, WA; also recorded from Mexico.

Host(s): larvae in *Calocedrus decurrens* (Torr.) Florin, *Eucalyptus* sp., *Pinus attenuata* Lemmon, *P. contorta* Loud., *P. c. var. murrayana* (Grev. & Balf.) Critchf., *P. ponderosa* Laws., *P. radiata* D. Don, *P. torreyana* Carr. and *Pseudotsuga menziesii* (Mirb.) Franco; adults also feed on termites.

elegans Sloop 1937 [syn. of *notata*]

hungarica Csiki 1905 [syn. of *notata*]

immaculata Mannerheim 1837 [syn. of *acuminata*]

longipes (Say 1823) [syn. of *acuminata*]

luteosignata Mannerheim 1837 [syn. of *notata*]

morio (Fabricius 1792) [syn. of *acuminata*]

notata (Laporte & Gory) 1837:4, plate 1, fig. 5 (adult) (*Apatura*).

Type locality: "Amer. Bor." – Type depository: MNHN.

synonym: *luteosignata* Mannerheim 1837:70 – Synonymy: LeConte 1860:212.

Type locality: "Amer. Bor." – Type depository: UZMH (♀) (Lectotype designation: Nelson 1976:167).

synonym: *hungarica* Csiki 1905:579 – Synonymy: Nelson 1980a:92.

Type locality: Hungary (error or introduced) – Type depository: HNHM (Lectotype not designated).

synonym: *elegans* Sloop 1937:7, fig. 23 (elytra) (as subspecies of *notata*) – Synonymy: Cobos 1987:75

Type locality: AZ, Douglas. – Type depository: CASC 4537 (♀).

unavailable name: *horniella* Obenberger 1944:318 (as aberration of *notata*, based on plate 4, fig. 6 in Horn 1882).

unavailable name: *paupera* Obenberger 1944:318 (as aberration of *notata*).

Type locality: NC – Type depository: NMPC.
unavailable name: *sloopi* Obenberger 1944:318 (as aberration of *notata*, based on fig. 24 in Sloop 1937).
Type locality: FL – Type depository: NMPC.
Taxonomy: Sloop 1937; Nelson 1980a; Cobos 1987.
Redescription: Sloop 1937:7, fig. 24 (elytra); Cobos 1987:75, figs. 31–34 (silhouettes ♂, ♀; ♂ genitalia).
Ecology: Sloop 1937; Craighead 1950 (biol.); Cobos 1987 (biol., distr.); Nelson 1987a (distr.).
Distribution: **USA**: AL, AZ, DC, FL, GA, IN, LA, MS, NC, NJ, OK, SC; also recorded from Mexico, Central America and the West Indies.
Host(s): unknown.

obscurata Lewis 1893 [syn. of *acuminata*]

occidentalis Obenberger 1928:209.
Type locality: CA – Type depository: NMPC.
Taxonomy: Sloop 1937; Cobos 1987.
Redescription: Sloop 1937:10, fig. 12 (♂ genitalia); Cobos 1987:68, figs. 25, 26 (silhouette ♂, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 962 (♂, ♀).
Ecology: Sloop 1937; Beer 1940; Barr & Linsley 1947; Linsley & Hurd 1957 (biol.); Cobos 1987 (biol., distr.); Davies 1991 (distr.).
Distribution: **Canada**: BC; **USA**: AZ, CA, ID, OR, UT, WA
Host(s): larvae in *Arbutus menziesii* Pursh, *Quercus garryana* Dougl. and *Q. john-tuckeri* K. Nixon & C.H. Muller; adults also on *Eucalyptus* sp., *Juniperus californica* Carr., *Larrea tridentata* (DC.) Cov., *Quercus kelloggii* Newb., *Q. chrysolepis* Liebm. and *Tamarix* sp.

opaca LeConte 1860 [syn. of *acuminata*]

Genus *Phaenops* Dejean 1833

Phaenops Dejean 1833:79.
Type species: *Buprestis cyaneus* Fabricius 1775 (fixed by subsequent designation: Opinion 1826, ICZN 1996b:60).
Melanophila of authors (in part), not *Melanophila* Eschscholtz 1829.
Taxonomy: Bellamy 1997d Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Key(s): Sloop 1937:11 (USA); Barr 1971:65 (Pacific NW); Wellso, *et al.* 1976:9 (MI); Bright 1987:125; (Canada & AK); Downie & Arnett 1996:750 (NE USA).

abies (Champlain & Knull) 1923b:105 (*Melanophila*, as variety of *drummondi*).
Type locality: Western ON, Lake Opasatika – Type depository: CNCI 543 (♂).
unavailable name: *abietis* (Obenberger) 1930:441 (*Melanophila*) (unjustified emendation).
unavailable name: *abietis* Nelson 1980a:93 (unjustified change of author).
Taxonomy: Sloop 1937; Nelson 1980a; 1985b.
Redescription: Sloop 1937:14; Nelson 1980a:93, fig. 8 (adult, clypeus).
Ecology: Sloop 1937 (biol., distr.); Davies 1991; Westcott 1991 (distr.).
Distribution: **Canada**: NB, ON, PQ; **USA**: NH, NY
Host(s): adults on *Abies balsamea* Mill.

aeneola (Melsheimer) 1845:146 (*Melanophila*).
Type locality: PA – Type depository: MCZC 34640 (Holotype authenticated: Nelson 1985b:142).
synonym: *metallicus* (Melsheimer) 1845:146 (*Melanophila*) – Synonymy: LeConte 1860:214.
Type locality: PA – Type depository: MCZC 34641 (Holotype authenticated: Nelson 1985b:142).
Taxonomy: Sloop 1937; Nelson 1985b.
Redescription: Sloop 1937:12, figs. 8, 13 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 823 (♂, ♀).
Ecology: Burke 1919a; Sloop 1937; Howden & Vogt 1951; Nelson, *et al.* 1981; Bright 1987 (distr., biol.); Nelson 1987a; Davies 1991; MacRae 1991 (distr.); Dearborn & Donahue 1993; MacRae & Nelson 2003 (biol.).
Distribution: **Canada**: ON, PQ; **USA**: AL, DC, DE, FL, GA, LA, MD, ME, MI, MO, MS, NC, NH, NJ, NY, PA, SC, TX, VA, WI, WV
Host(s): larvae in *Pinus resinosa* Ait. and *P. virginiana* Mill.; adults also on *Picea* sp., *Pinus banksiana* Lamb. and *P. echinata* P. Mill.

arcuatus (Fall 1932) [syn. of *lecontei*]

californica (Van Dyke) 1918:54 (*Melanophila*).
Type locality: CA, Trinity Co., Carrville – Type depository: CASC 3282 (♂).
unavailable name: *monostigmus* (Obenberger) 1944:319, plate 1, fig. 18 (elytra) (*Melanophila*, as aberration of *californicus*).
Type locality: OR, Baker Co., Wallowa Mtns. (Type information from type label) – Type depository: NMPC.
unavailable name: *tetrastictulus* (Obenberger) 1944:319, plate 1, fig. 17 (elytra) (*Melanophila*, as aberration of *californicus*).
Type locality: CA, Carville; OR, Baker Co, Wallowa Mtns. (Type locality information from syntype labels) – Type depository: NMPC (Lectotype not designated).
unavailable name: *vandykeanus* (Obenberger) 1944:319, plate 1, fig. 19 (elytra) (*Melanophila*, as aberration of *californica*).
Type locality: CA, Carville (Type information from type label) – Type depository: NMPC (Lectotype not designated).
Immature stages: West 1947: figs. 2–6 (egg, larva, pupa).
Taxonomy: Sloop 1937.
Redescription: Sloop 1937:16, fig. 4 (♂ genitalia); West 1947: fig. 1 (adult); Akiyama & Ohmomo 2000: fig. 827 (♂, ♀).
Ecology: Burke 1919a; Keen 1949; Leech 1959; Powell 1965; Lyon 1970 (biol.); Nelson & Westcott 1976; Davies 1991 (distr.).
Distribution: **USA**: CA, ID, NV, OR, WA; also recorded from Mexico.
Host(s): larvae in *Pinus attenuata* Lemmon, *P. coulteri* D. Don, *P. jeffreyi* Grev. & Balf., *P. ponderosa* Laws., *P. radiata* D. Don. *P. sabiniana* Dougl. and *Pseudotsuga macrocarpa* (Vasey) Mayr.
carolina (Manee) 1913:171 (*Melanophila*).
Type locality: NC, Southern Pines – Type depository: USNM 27475.
Taxonomy: Sloop 1937.
Redescription: Sloop 1937:14.
Distribution: **USA**: NC, SC
Host(s): adults on *Pinus palustris* Mill.
caseyi (Obenberger) 1944:321 (*Melanophila*).
Type locality: CA – Type depository: NMPC (♂).
Distribution: **USA**: CA
Host(s): unknown.
croceosignatus (Laporte & Gory 1837) [syn. of *fulvoguttata*]
decoloratus (Laporte & Gory 1837) [syn. of *fulvoguttata*]
drummondi drummondi (Kirby) 1837:159, plate 2, fig. 8 (adult) (*Buprestis*).
Type locality: Lat. 54° & 65°, in Rocky Mtns. – Type depository: BMNH (Lectotype not designated).
synonym: *umbellatarum (*Kirby) 1837:159 (*Buprestis*) – Synonymy: Chamberlin 1926:214.
Type locality: Lat. 54°, near Cumberland House – Type depository: BMNH? (Lectotype not designated; syntypes not located 1976).
synonym: *guttulatus* (Mannerheim) 1853:221 (*Melanophila*), not Gebler – Synonymy: LeConte 1860:213.
Type locality: "Amer. Bor." – Type depository: UZMH.
unavailable name: *tristiculus* (Obenberger) 1928:209 (*Melanophila*, as aberration of *d. drummondi*).
Type locality: not stated – Type depository: NMPC.
unavailable name: *plagiferus* (Obenberger) 1928:210 (*Melanophila*, as aberration of *d. drummondi*).
Type locality: CA, White Mtns. Type depository: NMPC.
unavailable name: *lanchesteri* (Obenberger) 1944:320, plate 1, fig. 22 (elytra) (*Melanophila*, as aberration of *d. drummondi*).
Type locality: CA, Carville – Type depository: NMPC (Lectotype not designated).
unavailable name: *monostictulus* (Obenberger) 1944:320 (*Melanophila*, as aberration of *d. drummondi*).
Type locality: CA –Type depository: NMPC.
unavailable name: *quirsfieldi* (Obenberger) 1944:320, plate 1, fig. 24 (elytra) (*Melanophila*, as aberration of *d. drummondi*).
Type locality: OR – Type depository: NMPC.
Immature stages: Burke 1917a: plate 2, fig. 2 (larva).

Taxonomy: Sloop 1937; Nelson 1980a.
Redescription: Sloop 1937:16, figs. 6, 16 (♂ genitalia, elytra); Helfer 1970:98 fig. (adult); Barr 1971: plate 7, fig. 5 (adult); Nelson 1980a: fig. 10 (adult, clypeus); Akiyama & Ohmomo 2000: fig. 829, 1–2 (♂, ♀).
Ecology: Burke 1919a; Chamberlin 1925a; Sloop 1937 (biol., distr.); Nelson & Westcott 1976 (biol.); Davies 1991 (distr.).
Distribution: **Canada**: AB, BC, YK; **USA**: AK, AZ, CA, CO, ID, MT, NM, OR, UT, WA, WY
Host(s): larvae in *Abies, Cedrus, Larix, Picea* and *Pseudotsuga*.

drummondi nicolayi (Obenberger) 1944:320, plate 1, fig. 23 (elytra) (*Melanophila*, as aberration of *drummondi*, elevated to ssp. by Wellso, *et al*. 1976:9).
Type locality: NH – Type depository: NMPC (♂).
Taxonomy: Obenberger 1944; Wellso, *et al*. 1976.
Redescription: Akiyama & Ohmomo 2000: fig. 829, 3–4 (♂, ♀)
Ecology: Wellso, *et al*. 1976 (biol., distr.); Westcott 1991 (distr.); Wellso & Jackman 2006 (biol.).
Distribution: **USA**: NH, MI, NY
Host(s): larvae in *Larix laricina* (DuRoi) K. Koch; adults also on "conifers".

fulvoguttata (Harris) 1829:2 (*Buprestis*).
Type locality: New England, not stated – Type depository: MCZC.
synonym: *croceosignatus* (Laporte & Gory) 1837:5, plate 1, fig. 6 (adult) (*Apatura*) – Synonymy: Saunders 1871:48.
Type locality: No. Amer. – Type depository: MNHN (♂).
synonym: *decoloratus* (Laporte & Gory) 1837:5, plate 1, fig. 7 (adult) (*Apatura*) – Synonymy: Saunders 1871:48.
Type locality: "Amer. Bor." – Type depository: MNHN.
synonym: *octospilotus* (Laporte & Gory) 1837:4, plate 1, fig. 4 (adult) (*Apatura*) – Synonymy: Saunders 1871:48.
Type locality: No. Amer. – Type depository: MNHN.
misspelling: *octospilatus* (*lapsus calami*).
misidentification: *guttulatus* of authors, not *guttulatus* Gebler 1830.
unavailable name: *harrisi* (Obenberger) 1944:320, plate 1, fig. 14 (elytra) (*Melanophila*, as aberration of *fulvoguttata*).
Type locality: PA – Type depository: NMPC
unavailable name: *pacificus* (Obenberger) 1944:320, plate 1, fig. 13 (elytra) (*Melanophila*, as aberration of *fulvoguttata*).
Type locality: CA – Type depository: NMPC
Immature stages: Benoit 1966b: figs. 1–4 (larva).
Taxonomy: Sloop 1937.
Redescription: Knull 1925: plate 5, fig. 1 (adult); Sloop 1937:15, fig. 2 (♂ genitalia); Akiyama & Ohmomo 2000: fig.826 (♂, ♀).
Ecology: Felt 1906; Burke 1919a; Knull 1920 (biol.); Sloop 1937 (biol., distr.); Davies 1991 (distr.).
Distribution: **Canada**: ON, QC; **USA**: CT, MA, ME, MI, NC, NH, NJ, NY, PA, SC, TN, WV
Host(s): larvae in *Abies balsamea* (L.) Mill., *Larix laricina* (DuRoi) K. Koch, *Picea glauca* (Moench) Voss, *P. mariana* (Mill.) B.S.P., *P. rubens* Sarg., *Pinus strobus* L. and *Tsuga canadensis* Carr.

gentilis (LeConte) 1863:42 (*Melanophila*, replacement name for *prasina* (LeConte 1860)).
synonym: *prasinus* (LeConte) 1860:254 (*Melanophila*, preoccupied: *prasina* Mannerheim 1837).
Type locality: CA, San Mateo – Type depository: MCZC 2678.
Taxonomy: Sloop 1937.
Redescription: Good 1925: plate 8 (wing); Sloop 1937:14, figs. 1, 17, 21 (♂ genitalia, wing, thorax); Akiyama & Ohmomo 2000: fig. 838 (♂, ♀).
Ecology: Chamberlin 1917; Burke 1917b; 1919a (biol.); Nelson & Westcott 1976; Davies 1991 (distr.).
Distribution: **Canada**: BC; **USA**: AZ, CA, CO, ID, MT, NE, NM, NV, OR, SD, UT, WA
Host(s): larvae in *Pinus contorta* Loud., *P. contorta* var. *murrayana* (Grev. & Balf.) Critchf., *P. ponderosa* Laws. and *P. scopulorum* Engelm.

guttulatus (Mannerheim 1853) [syn. of *drummondi drummondi*]

horni (Obenberger) 1944:319 (*Melanophila*).
Type locality: NY, Buffalo – Type depository: NMPC (Lectotype not designated).
unavailable name: *immaculatellus* Obenberger 1944:319 (*Melanophila*, as aberration of *horni*).
Type locality: NY, Buffalo – Type depository: NMPC.
Distribution: **USA**: NY.
Host(s): unknown.

intrusa (Horn) 1882:105 (*Melanophila*).
Type locality: NV – Type depository: MCZC 8123.
Immature stages: Burke 1917a: plate 2, fig. 3 (larva).
Taxonomy: Sloop 1937.
Redescription: Sloop 1937:12, fig. 7 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 824 (♂, ♀).
Ecology: Burke 1917b; 1919a; Beer 1940; Leech 1959 (biol.); Nelson & Westcott 1976 (biol., distr.); Davies 1991 (distr.); Westcott 1991.
Distribution: **Canada**: BC, NB; **USA**: AZ, CA, CO, ID, MT, NV, OR, WA
Host(s): larvae in *Larix occidentalis* Nutt., *Pinus attenuata* Lemmon, *P. flexilis* James, *P. lambertiana* Dougl. and *P. ponderosa* Laws.

lecontei (Obenberger) 1928:210 (*Melanophila*).
Type locality: CA, Tahoe, Grass Valley – Type depository: NMPC.
synonym: *arcuatus* (Fall) 1932:83 (*Melanophila*) – Synonymy: Nelson, *et al*. 1996:189.
Type locality: AZ, Grand Cyn. of the Colo., N. Rim – Type depository: MCZC 24438 (♀).
unavailable name: *burkei* (Obenberger) 1944:321, plate 1, fig. 10 (elytra) (*Melanophila*, as aberration of *lecontei*).
Type locality: OR – Type depository: NMPC.
unavailable name: *oregonicus* (Obenberger) 1944:321 plate 1, fig. 9 (elytra) (*Melanophila*, as aberration of *lecontei*).
Type locality: OR – Type depository: NMPC.
Taxonomy: Nelson 1980a; Nelson, *et al*. 1996.
Redescription: Obenberger 1944: plate 1, fig. 11 (elytra); Nelson 1980a: fig. 9 (adult, clypeus); Akiyama & Ohmomo 2000: fig. 828 (♂, ♀).
Ecology: Nelson, *et al*. 1981; 1996 (biol., distr.); Westcott 1991 (distr.); 2007b (distr.)
Distribution: **Canada**: BC; **USA**: AZ, CA, CO, ID, MT, NM, OR, UT, WA, WY
Host Larvae in bark of *Abies concolor* (Gord. & Glend.) Lindl., *A. lasiocarpa* (Hook.) Nutt., *A. magnifica* A. Murr. and *Tsuga mertensiana* (Bong.) Carr.; adults also on *Abies bracteata* D. Don and *Pinus* sp.

metallicus (Melsheimer 1845) [syn. of *aeneola*]

nicolayi (Obenberger) 1944) [ssp. of *drummondi*]

obenbergeri (Knull) 1952:350 (*Melanophila*), fig. 2 (♀ type).
Type locality: TX, Fayette Co. – Type depository: FMNH (♀)
Distribution: **USA**: TX
Host(s): unknown.

obtusa (Horn) 1882:106 (*Melanophila*).
Type locality: GA – Type depository: MCZC 33789.
Taxonomy: Sloop 1937.
Ecology: Nelson & Westcott 1976; (biol., distr.); MacRae 2006 (distr.).
Distribution: **USA**: AL, FL, GA, LA, MS, NY, SC
Host(s): adults on *Pinus* sp.

octospilotus (Laporte & Gory 1837) [syn. of *fulvoguttata*]

piniedulis (Burke) 1908:117, fig. 6 (♀) (*Melanophila*).
Type locality: AZ, Bright Angel Hotel, Grand Cyn. P.O. – Type depository: USNM 11351.
Taxonomy: Sloop 1937.
Redescription: Sloop 1937:15, figs. 3, 14 (♂ genitalia, elytra); Akiyama & Ohmomo 2000: fig. 831 (♂, ♀).
Ecology: Burke 1919a; Sloop 1937; Nelson 1962 (biol., distr.); Barr 1969a; Knull 1974 (distr.); MacRae & Nelson 2003 (biol.).
Distribution: **USA**: AZ, CA, CO, NM, NV, TX, UT
Host(s): larvae in *Pinus edulis* Engelm.and *P. monophylla* Torr. & Frem.

prasinus (LeConte 1860) [syn. of *gentilis*]
*umbellatarum (*Kirby 1837) [syn. of *drummondi drummondi*]
vandykei (Obenberger) 1944:321 (*Melanophila*).
Type locality: CA, Carville – Type depository: NMPC 22081.
Redescription: Akiyama & Ohmomo 2000: fig. 825 (♂, ♀).
Distribution: **USA**: CA
Host(s): unknown.

Genus *Xenomelanophila* Sloop 1937
Xenomelanophila Sloop 1937:18.
Types species: *Phaenops mirandus* LeConte (fixed by monotypy).
Trachypteris sensu Akiyama & Ohmomo 2000 (part).
Taxonomy: Sloop 1937; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Key(s): Sloop 1937.

miranda LeConte 1854b:83 (*Phaenops*).
Type locality: NM, Fort Union – Type depository: MCZC 2675.
Taxonomy: Sloop 1937; Cobos 1987.
Redescription: Sloop 1937: figs. 5, 15 19 (♂ genitalia, elytra, wing): Cobos 1987:88, figs. 40, 45, 48 (♂ genitalia, ovipositor); Akiyama & Ohmomo 2000: fig. 967 (♂ & ♀ as *Trachypteris miranda*).
Ecology: Sloop 1937 (distr.); Barr 1971; Cobos 1987; (biol., distr.); Westcott 2007b (biol., distr.).
Distribution: **USA**: AZ, CA, CO, ID, NM, NV, OR, TX, UT, WA; also recorded from Mexico.
Host(s): larvae in *Juniperus occidentalis* Hook. And adults on *Calocedrus decurrens* (Torr.) Florin.

Genus *Juniperella* Knull 1947
Juniperella Knull 1947a:69, plate 1, fig. 2 (adult).
Type species: *Juniperella mirabilis* Knull 1947 (fixed by original designation).
Taxonomy: Knull 1947a; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

mirabilis Knull 1947a:69, plate 1, fig. 2 (adult).
Type locality: CA, Santa Rosa Mtns., 4000' – Type depository: FMNH (♀).
Immature stages: Alten 2005: figs. 1–3 (larval workings, larva, pupa).
Redescription: Akiyama & Ohmomo 2000: fig. 968 (♂, ♀).
Ecology: Knull 1948; Nelson 1960b; 1962; Alten 2005 (biol.).
Distribution: **USA**: CA
Host(s): larvae in *Juniperus californica* Carr.

Tribe Actenodini Kerremans 1890
Actenodites Kerremans 1890:cxxxv.
Type genus: *Actenodes* Dejean 1833.
Belionota Jackson 1913:793, not Eschscholtz 1829.
Type genus: *Belionota* Eschscholtz 1829.
Classification: Fisher 1942; Arnett 1962; Nelson 1982; Bellamy 1985; Hołyński 1993; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.
Key(s): Bellamy & Nelson 2002:104 (genus).

Genus *Actenodes* Dejean 1833
Actenodes Dejean 1833:80.
Type species: *Buprestis nobilis* Linnaeus 1758 (fixed by monotypy).
Taxonomy: Fisher 1942 (revision No. Amer. spp.); Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
Redescription: Fisher 1942:4.
Ecology: Burke 1917a (biol.); Fisher 1942 (biol., distr.).
Key(s): Fisher 1942:5, Knull 1964:377, Nelson 1979:90.

acornis (Say) 1833:63 (*Buprestis*).
Type locality: IN, Lake Co. – Type depository: USNM (♀ neotype designated: Fisher 1942:14).
synonym: *rugulosus* (Gory) 1841:177 (*Chrysobothris*) – Synonymy: LeConte 1873:332.
Type locality: "Amer. Bor." Type depository: MNHN (Lectotype not designated).
synonym: *punctatus* (Melsheimer) 1845:147 (*Chrysobothris*) – Synonymy: LeConte 1860:241.
Type locality: PA. Type depository: MCZC.
synonym: *californicus* (Motschulsky) 1859:184 (*Belionota*) – Synonymy: Horn 1886:118.
Type locality: Nova–Helvetica CA, Sacramento – Type depository: ZMUM (original type was lost).
Taxonomy: Fisher 1942.
Redescription: Knull 1925; plate 5 (adult); Good 1925: plate 8 (wing); Fisher 1942:14 (♂, ♀), fig. 110F (♂genitalia); Akiyama & Ohmomo 2000: fig. 1432 (♂, ♀).
Ecology: Fisher 1942; Wellso 1974; Nelson, *et al*. 1981; Nelson & MacRae 1990; MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AL, CT, DC, FL, GA, IA, IL, IN, KS, KY, LA, MD, MI, MO, MS, NC, NJ, NY, OH, OK, PA, TN, TX, VA, WI, WV
Host(s): larvae in *Acer rubrum* L., *A. saccharum* Marsh., *Betula lenta* L., *B. nigra* L., *Carya glabra* (Mill.) Sweet, *C. illinoinensis* (Wangenh.) K. Koch, *C. laciniosa* (Michx. f.) G. Don, *C. ovata* (Mill.) K. Koch, *Cercis canadensis* L., *Fagus grandifolia* Ehrh. and *Quercus velutina* Lam.; adults also on *Diospyros virginiana* L. and *Quercus prinoides* Willd.

arizonicus Knull 1927:115.
Type locality: AZ, Tucson – Type depository: FMNH (♀).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:12 (♂, ♀), fig. 110E (♂ genitalia); Akiyama & Ohmomo 2000: fig. 1431 (♂, ♀).
Ecology: Fisher 1942 (distr.); Nelson 1962; Walters 1978 (biol.).
Distribution: **USA**: AZ, CA
Host(s): adults on *Prosopis glandulosa* Torr.

auronotatus Gory & Laporte 1837:20, plate 4, fig. 30 (adult).
Type locality: Cuba – Type depository: MNHN.
synonym: *bellus* LeConte 1860:240 – Synonymy: Fisher 1942:6.
Type locality: GA – Type depository: MCZC 2710 (♂).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:6 (♂, ♀), fig. 110A (♂ genitalia) Akiyama & Ohmomo 2000: fig. 1433 (♀).
Ecology: Fisher 1942 (biol., distr.); Nelson, *et al*. 1981 (biol.).
Distribution: **USA**: FL, GA; also recorded from the West Indies.
Host(s): larvae in *Baccharis halimifolia* L., *Metopium toxiferum* (L.) Krug & Urban and *Taxodium distichum* (L.) Rich.; adults also on *Cajanus cajan* (L.) Millsp., *Casuarina equisetifolia* Foster and *Lysiloma latisiliquum* (L.) Benth.

bellus LeConte 1860 [syn. of *auronotatus*]

calcaratus (Chevrolat) 1835: No. 103 (*Belionota*).
Type locality: Mexico: Pres des mines Zimapan – Type depository: BMNH.
synonym: *fulguratus* (Mannerheim) 1837:80 (*Chrysobothris*) – Synonymy: Saunders 1871:93.
Type locality: Mexico – Type depository: UZMH (♂) (Lectotype designated: Nelson 1976:168.).
synonym: *lebasi* (Gory & Laporte) 1837:30 (*Chrysobothris*), plate 6, fig. 43 (adult) – Synonymy: Saunders 1871:93.
Type locality: Colombia: Carthagene – Type depository: MNHN.
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:9 (♂, ♀)., fig. 110C (♂ genitalia); Akiyama & Ohmomo 2000: fig. 1429 (♂, ♀).
Ecology: Fisher 1942; Nelson 1962; Walters 1978; Westcott 1991 (distr.); MacRae 2006 (distr., biol.).
Distribution: **USA**: AZ, CA, LA, TX; also recorded from Mexico, Central and.South America.
Host(s): larvae in *Acacia farnesiana* (L.) Willd., *Cercidium floridum* Gray, *Leucaena pulverulenta* (Schlecht.) Benth., *Olneya tesota* Gray and *Ziziphus obtusifolia* (T. & G.) Gray; adults also on *Acacia constricta* Benth., *A. pennatula* (Schltdl. & Cham.) Benth., *Parkinsonia* sp. and *Prosopis glandulosa* Torr.

californicus (Motschulsky 1859) [syn. of *acornis*]
davidi Nelson 1979:87, figs. 1–3 (♂, ♀), (♂ genitalia).
Type locality: MO, Jackson Co., Lees Summit – Type depository: CASC 13668 (♀).
Ecology: Westcott 1991 (biol., distr.); MacRae & Nelson 2003 (biol.).
Distribution: **USA**: KS, KY, MO, MS, TX
Host(s): larvae in *Gleditsia triacanthos* L.
flexicaulis Schaeffer 1904:209.
Type locality: TX, Brownsville, Esperanza Ranch – Type depository: USNM 42369 (♀) (Lectotype designation: Fisher 1942:9).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:8 (♂, ♀), fig. 110B (♂ genitalia).
Ecology: Fisher 1942 (biol., distr.); Vogt 1949b; Manley 1977 (biol.).
Distribution: **USA**: TX
Host(s): larvae in *Celtis ehrenbergia* (Klot.) Liebm.; adults also on *Acacia farnesiana* (L.) Willd., *Condalia hooker* Johnston and *Ebenopsis ebano* (Berl.) Barneby & Grimes.
fulguratus (Mannerheim) 1837) [syn. of *calcaratus*]
lebasi (Gory & Laporte 1837) [syn. of *calcaratus*]
mendax Horn 1891:46.
Type locality: TX – Type depository: MCZC 33799 (♂) (Lectotype designation: Fisher 1942:12).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:11 (♂, ♀), fig. 110D (♂ genitalia); Nelson 1979: fig.4 (♀).
Ecology: Fisher 1942 (biol., distr.); Wellso 1974 (biol.); Nelson & Westcott 1979 (distr.).
Distribution: **USA**: AZ, NM, TX
Host(s): larvae in *Gleditsia triacanthos* L. and *Prosopis glandulosa* Torr.
mimicus Knull 1964:376 (♂, ♀), figs. 1, 2 (♂ genitalia).
Type locality: AZ, Chiricahua Mtns. – Type depository: FMNH (♂).
Taxonomy: Knull 1964.
Ecology: Knull 1964 (biol., distr.).
Distribution: **USA**: AZ
Host(s): adults on *Quercus hypoleucoides* Camus.
punctatus (Melsheimer 1845) [syn. of *acornis*]
rugulosus (Gory 1841) [syn. of *acornis*]
simi Fisher 1940:176.
Type locality: NJ, Brigantine – Type depository: USNM 54368 (♂).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:15 (♂, ♀).
Ecology: Fisher 1942; Nelson, *et al.* 1981 (distr.); Westcott 1991; MacRae & Nelson 2003 (biol.); MacRae 2006; Wellso & Jackman 2006 (biol., distr.).
Distribution: **USA**: IA, KS, IN, MA, MI, MO, NH, NJ, NY, PA, RI, TX, WI
Host(s): larvae in *Acer saccharinum* L., *Celtis tenuifolia* Nutt., *Quercus alba* L. and *Ulmus crassifolia* Nutt.; adults also on *Quercus palustris* Muenchh. and *Q. velutina* Lam.

Tribe Chrysobothrini Gory & Laporte 1838
"Chrysobothrites, Chrysobothridae" Gory & Laporte 1838:1.
Type genus: *Chrysobothris* Eschscholtz 1829.
Scutellatae Section 4 Schönherr 1817.
Chrysobothridae Gory & Laporte 1838.
Chrysobothrites Gory & Laporte 1838.
Actenodeidae Gistel 1848b; 1856.
Type genus: *Tamina* Gistel 1848.
Buprestides vrais Lacordaire 1857 (part).
Chrysobothrides Lacordaire 1857.
Anthaxites Jacquelin du Val 1863 (part).
Chrysobothres LeConte 1861.
Anthaxiina C. G. Thomson 1864.
Anthaxiini Schioedte 1865.

Buprestinae Bøving & Craighead 1931 (part).
Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1903; Fisher 1942; Arnett 1962; Nelson 1982; Bellamy 1985; Hołyński 1993; Bellamy & Volkovish 1997; Bílý 1999a; Kolibác 2001; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.
Key(s): Kerremans 1893:111; 1903:181; Fisher 1942:4 (genera); Arnett 1962:485; Hołyński 1993:33; Bellamy & Volkovitsh 1997; Bellamy & Nelson 2002:104 (genera).

Genus *Chrysobothris* Eschscholtz 1829

Chrysobothris Eschscholtz 1829:9 (original spelling: *Chrysobotris*, emended by Dejean 1833; emended spelling confirmed by Opinion 1784, ICZN 1994:989).
Type species: *Buprestis chrysostigma* Linnaeus 1758 (fixed by subsequent designation: Westwood 1838:24).
Amblis Gistel 1834:10 – Synonymy: Mannerheim 1837:74.
Type species: *Buprestes chrysostigma* Linnaeus 1758 (fixed by subsequent designation: Bellamy 2003a:10).
Odontomus Kirby 1837:156 (as subgenus of *Buprestis*) – Synonymy: Lacordaire 1857:75.
Type species: *Buprestis chrysostigma* Linnaeus 1758 (fixed by original designation).
Tamina Gistel 1848:cover – (3) (pp. 9, 11 above) – Synonymy: Bellamy 2003a:11.
Type species: *Buprestis chrysostigma* Linnaeus 1758 (fixed by subsequent designation: Bellamy 2003a:11.
Enocys Gistel 1856:366 – Synonymy: Obenberger 1934a:578.
Type species: *Buprestis chrysostigma* Linnaeus 1758 (fixed by subsequent designation: Bellamy 2003a:10).
Ceratobothris Pochon 1972:105, figs. 2, 3 – Synonymy: Cobos 1978:43 (erroneously reversed).
Type species: Unavailable name, without fixation of type species in original publication (ICZN 1999, Article 13.3).
Immature stages: Burke 1917a (larvae).
Taxonomy: Horn 1886; Fisher 1942 (revisions); Volkovitsh 2001; Bellamy & Nelson 2002.
Redescription: Horn 1886:67; Fisher 1942:17.
Ecology: Fisher 1942 (biol., distr.).
Key(s): Horn 1886:71; Fisher 1942:20 (N AMER. N. of Mexico.); Barr 1971:73 (Pacific NW); Wellso, *et al*. 1976:11 (MI); Bright 1987:163 (Canada & AK); MacRae 1991:111 (MO).

acaciae Knull 1936:105 (♂, ♀).
Type locality: TX, Davis Mtns. – Type depository: FMNH (♂).
misidentification: *axillaris* of authors, not *axillaris* Horn 1886.
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:114 (♂, ♀), figs. 43, 117A (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1388 (♂, ♀).
Ecology: Fisher 1942; Cazier 1951b; Nelson 1987a; Westcott, *et al*. 1990 (distr.); Davidson & Davidson 2005; MacRae 2006 (distr., biol.).
Distribution: **USA**: NM, TX; also recorded from Mexico.
Host(s): larvae in *Acacia greggii* Gray and *Prosopis glandulosa* Torr. var. *glandulosa*; adults also on *A. constricta* Benth. and *A. farnesiana* (L.) Willd.
acuminata LeConte 1860 [syn. of *acutipennis*]
acutipennis Chevrolat 1835: No. 190.
Type locality: Mexico: Tuspan – Type depository: BMNH.
synonym: *cupreoaenea* Gory & Laporte 1837:39 – Synonymy: Waterhouse 1887:42.
Type locality: "Caienne" – Type depository: MNHN.
synonym: *acuminata* LeConte 1860:237 – Synonymy: Westcott 1990a:324.
Type locality: Mexico: Tamaulipas to Matamoras – Type depository: MCZC 3763 (♂) (Lectotype designation: Fisher 1942:202, no locality label).
synonym: *cupreosignata* Thomson 1878:80 – Synonymy: Waterhouse 1887:42.
Type locality: "Mexicum" – Type depository: MNHN.
Taxonomy: Fisher 1942; Westcott 1990a.

Redescription: Horn 1886 (part); Fisher 1942:203 (♂, ♀), figs. 85, 123F (parts, ♂ genitalia); Westcott 1990a:324, fig. 1 (adult).
Ecology: Fisher 1942; Vogt 1949b; Westcott 1990a (biol., distr.).
Distribution: **USA**: TX; also recorded from Mexico, Central and South America.
Host(s): larvae in *Ebenopsis ebano* (Berl.) Barneby & Grimes and *Leucaena pulverulenta* (Schlecht.) Benth.

adelpha Harold 1869:124 (replacement name for *soror* LeConte 1860).
misidentification: *femorata* of authors, not *femorata* Olivier 1790.
synonym: *soror* LeConte 1860:232 (preoccupied: *soror* Gory & Laporte 1837).
Type locality: Western States – Type depository: MCZC 2692 (♀).
Immature stages: Benoit 1964:1112, fig. 22 (larva).
Taxonomy: Fisher 1942; Wellso & Manley 2007.
Redescription: Fisher 1942:130 (♂, ♀), figs. 52, 118D (parts, ♂ genitalia); Wellso & Manley 2007:6 (♂, ♀), figs. 3, 15, 27 (elytral sculpture, ♂ genitalia, ♀ pygidium).
Ecology: Fisher 1942; Bright 1987; Westcott 1990 (distr.); MacRae 1991; Nelson, *et al*. 1996 (biol.); MacRae 2006 (biol., distr.); Wellso & Manley 2007 (biol., distr.).
Distribution: **Canada**: ON, PQ; **USA**: AR, FL, GA, IA, IL, IN, KS, KY, LA, MA, MD, MI, MO, MS, NC, NJ, NY, OH, OK, PA, RI, TN, TX, VA, WI, WV
Host(s): larvae in *Amelanchier arborea* (Michx. f.). Fern., *Carya alba* (L.) Nutt., *C. floridana* Sarg., *C. glabra* (Mill.) Sweet, *C. illinoinensis* (Wangenh.) K. Koch, *C. laciniosa* (Michx. f.) G. Don, *C. ovata* (Mill.) K. Koch, *C. tomentosa* Nutt. and *Prosopis glandulosa* Torr.; adults also on *Acer platanoides* L., *Fraxinus pennsylvanica* Marsh. and *Quercus* sp.

aeneola LeConte 1860:239.
Type locality: KS, Fort Riley – Type depository: MCZC 2707 (♂) (Lectotype designation: Fisher 1942:66).
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Horn 1886:113, figs. 222–226 (adult & parts); Fisher 1942:65 (♂, ♀), figs. 19, 113D (parts, ♂ genitalia).
Ecology: Fisher 1942 (biol., distr.); Bright 1987; Davies 1991 (distr.).
Distribution: **Canada**: AB, SK; **USA**: CA, CO, KS, NM, NV, WY
Host(s): larvae in *Eriogonum* sp.

analis LeConte 1860:238.
Type locality: Mexico: Matamoras – Type depository: MCZC 2705 (♂) (Lectotype designation: Fisher 1942:216).
synonym: *austinii* Thomson 1878:78 – Synonymy: Waterhouse 1887:40.
Type locality: Mexico – Type depository: MNHN.
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Horn 1886:111, figs. 207–211 (adult & parts); Fisher 1942:215 (♂, ♀), figs. 92, 124E (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1409 (♂, ♀).
Ecology: Fisher 1942; Vogt 1949b; Wellso 1974; Nelson & Westcott 1976; Manley 1977; Nelson, *et al*. 1981; Nelson, *et al*. 1996; MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, NM, TX; also recorded from Mexico.
Host(s): larvae in *Acacia berlandieri* Benth., *A. farnesiana* (L.) Willd., *A. rigidula* Benth., *Carya illinoinensis* (Wangenh.) K. Koch, *Celtis ehrenbergiana* (Klot.) Liebm., *C. laevigata* Willd., *C. lindheimeri* Engelm. ex K. Koch, *Cercis canadensis* L. var. texensis (S. Watts.) ♂ Hopkins, *Citrus* sp., *Coccoloba liebmanni* Lindau, *Diospyros texana* Scheele, *Ebenopsis ebano* (Berl.) Barneby & Grimes, *Haematoxylon* sp., *Juglans major* (Torr.) Heller, *Leucaena pulverulenta* (Schlecht.) Benth., *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby, *Parkinsonia aculeata* L., *Prosopis glandulosa* Torr., *Prunus persica* (L.) Batsch., *Rhus virens* Lindheimer ex Gray, *Sapindus saponaria* L. var. *drummondii* (H. & A.) L. Benson and *Ulmus crassifolia* Nutt.; adults also on *Acacia greggii* Gray.

apache Westcott & Barr 2007 [ssp. of *socialis*]

arizonica Chamberlin 1938a:13 (♂, ♀).
Type locality: AZ, Coconino Co. – Type depository: CASC 5504 (♂).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:36 (♂, ♀), figs. 4, 111D (parts, ♂ genitalia); Akiyama & Ohmomo 2000:

fig. 1388 (♂, ♀).
Ecology: Fisher 1942; Barr 1969a; Wellso 1974 (distr.); Westcott 1990 (biol., distr.).
Distribution: **USA**: AZ, CO, NM, WY
Host(s): larvae in *Ericameria laricifolia* (Gray) Skinner and *Gutierrezia sarothrae* (Pursh) Britt. & Rusby.

atriplexae Fisher 1942:45 (♂, ♀).
Type locality: CA, Death Valley – Type depository: USNM 55292 (♂).
Taxonomy: Fisher 1942.
Ecology: Fisher 1942 (biol., distr.); Nelson 1959 (biol.).
Redescription: Akiyama & Ohmomo 2000: fig. 1414 (♂, ♀).
Distribution: **USA**: CA
Host(s): larvae in *Atriplex hymenelytra* (Torr.) S. Wats.; adults also on *A. canescens* (Pursh) Nutt.

austinii Thomson 1878 [syn. of *analis*]

axillaris Horn 1886:75, plate 2, figs. 20–24 (adult, parts).
Type locality: S AZ – Type depository: MCZC 33792 (♀).
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Fisher 1942:112 (♂, ♀), figs. 42, 116F (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1387 (♂, ♀).
Ecology: Fisher 1942; Barr & Westcott 1976 (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, TX
Host(s): larvae in *Quercus arizonica* Sarg., *Q. emoryi* Torr., *Q. hypoleucoides* Camus and *Q. mohriana* Buckl. ex Rydb.; adults also on *Q. gambelii* Nutt.

azurea LeConte 1857:8 (replacement name for *ultramarina* Gory & Laporte 1837).
synonym: *ultramarina* Gory & Laporte 1837:13, plate 3, fig. 19 (adult) (misidentified as *ultramarina* Say) – Synonymy: LeConte 1860:239.
Type locality: "Amer. Bor." Type depository: MNHN (Lectotype not designated).
unavailable name: *lecontei* Leng 1920:182 (unjustified new name).
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Horn 1886:112, figs. 217–221 (adult, parts); Fisher 1942:222 (♂, ♀), figs. 95, 125c (parts, ♂ genitalia).
Ecology: Fisher 1942; Barr 1971; Barr & Westcott 1976; Nelson, *et al.* 1981; Bright 1987; Davies 1991; MacRae 1991 (biol.); Nelson, *et al.* 1996; Peck & Thomas 1998 (distr.); MacRae & Nelson 2003; MacRae 2006 (biol., distr.).
Distribution: **Canada**: AB, BC, MB, ON, PQ, SK; **USA**: AL, AR, CO, CT, FL, GA, IA, ID, IL, IN, KS, MA, MD, ME, MI, MO, MT, NH, NJ, NY, OH, OK, PA, RI, TN, TX, VA, WV
Host(s): larvae in *Acer* sp., *Alnus incana* (L.) Moench ssp. *rugosa* (DuRoi) Clausen, *Amelanchier arborea* (Michx. f.) Fern., *Betula populifolia* Marsh, *Carya illinoinensis* (Wangenh.) K. Koch., *Celastrus scandens* L., *Cercis canadensis* L., *Crataegus viridis* L., *Diospyros virginiana* L., *Juglans nigra* L., *Pinus* sp., *Prunus virginiana* L., *Quercus bicolor* Willd., *Q. coccinea* Muenchh., *Rhus glabra* L., *Vitis* sp. and *Wisteria chinensis* DC.; adults also on *Acer saccharum* Marsh., *A. platanoides* L., *Carya tomentosa* Nutt., *Cornus florida* L., *C. racemosa* Lam., *Crataegus* sp., *Fraxinus americana* L., *F. pennsylvanica* Marsh., *Gleditsia triacanthos* L., *Koelreuteria paniculata* Laxmann, *Pinus strobus* L., *Populus tremuloides* Michx., *Quercus palustris* Muenchh., *Q. velutina* Lam. and *Toxicodendron pubescens* Mill.

bacchari Van Dyke 1923:38 (♂, ♀).
Type locality: CA, Los Gatos – Type depository: CASC 3320 (♂).
Immature stages: Benoit 1966a:325 (larva).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:61 (♂, ♀), figs. 17, 113c (parts, ♂ genitalia).
Ecology: Fisher 1942; Tilden 1951; Nelson, *et al.* 1981 (biol.); Solomon 1995 (biol., distr.).
Distribution: **USA**: CA
Host(s): larvae in *Baccharis pilularis* DC. and *B. sergiloides* Gray; adults also on *B. sarathroides* Gray.

barri Westcott 1971:131 (♂, ♀), figs. 1–5 (parts, ♂ genitalia).
Type locality: NV, Shoshone Mtns., Ichthyosaur St. Mon., 7000' – Type depository: CASC 11559 (♂).
Taxonomy: Westcott 1971.

Ecology: Barr & Westcott 1976 (biol.); MacRae & Nelson 2003 (biol., distr.).
Distribution: **USA**: CA, NV
Host(s): larvae in *Pinus monophylla* Torr. & Frem.

basalis LeConte 1858:68.
Type locality: TX, Laredo to Ringgold Barracks – Type depository: MCZC (♀) (Lectotype designation: Fisher 1942:79).
misidentification: *atabalipa* of authors (in part), not *atabalipa* Gory & Laporte 1837.
misidentification: *multistigmosa* of authors (in part), not *multistigmosa* Mannerheim 1837.
Taxonomy: Fisher 1942; Nelson 1975a.
Redescription: Fisher 1942 (♂, ♀), figs. 26, 114C (parts, ♂ genitalia); Nelson 1975a: figs. 9, 20 (♀ pygidium, ♂ genitalia).
Ecology: Fisher 1942 (distr.); Vogt 1949b; Nelson 1975a; Westcott, *et al.* 1990; MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, TX; also recorded from Mexico.
Host(s): larvae in *Acacia farnesiana* (L.) Willd., *A. rigidula* Benth. and *Leucaena pulverulenta* (Schlecht.) Benth.; adults also on *Prosopis glandulosa* Torr.

beameri Knull 1954a:27, figs. 6, 9–12 (parts, ♂ genitalia).
Type locality: TX, Big Bend – Type depository: SEMC (♂).
Taxonomy: Knull 1954a; Westcott & Davidson 2001.
Redescription: Nelson 1968a:28 (♀), fig. 1 (last abd. ventrite).
Ecology: Manley 1977 (biol.); Westcott & Davidson 2001; MacRae 2006 (biol., distr.).
Distribution: **USA**: TX
Host(s): larvae in *Rhus virens* Lindheimer ex Gray var. *choriophylla* (Woot. & Standl.) L. Benson; adults also on *Pinus cembroides* Zucc. and *Rhus aromatica* Ait.

beeri Barr 1969 [syn. of *caurina*]

beyeri Schaeffer 1904:207.
Type locality: BAJA CA N, San Felipe – Type depository: USNM 42637 (♂).
misidentification: *bacchari* of authors (in part), not *bacchari* Van Dyke 1923.
misidentification: *lineatipennis* of authors (in part), not *lineatipennis* Van Dyke 1916.
Taxonomy: Fisher 1942.
Redescription: Van Dyke 1942: fig. 7 (adult); Fisher 1942:60 (♂, ♀), figs. 16, 113B (parts, ♂ genitalia).
Ecology: Fisher 1942 (biol., distr.).
Distribution: **USA**: AZ; also recorded from Mexico: BCN.
Host(s): larvae in *Baccharis sergiloides* Gray; adults also on *Salix* sp.

bicolor Horn 1894:366.
Type locality: Mexico: BCN, San José del Cabo – Type depository: CASC 19 (♀).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:244 (♂, ♀), figs. 107, 126F (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1417 (♂, ♀).
Ecology: Fisher 1942 (distr.); Nelson 1965; Knull 1970 (biol., distr.); Nelson, *et al.* 1981 (biol.).
Distribution: **USA**: AZ, CA, NM; also recorded from Mexico: BCN.
Host(s): larvae in *Prunus fremontii* S. Wats.; adults also on *Acacia greggii* Gray and *Rhus trilobata* Nutt.

bimarginicollis Schaeffer 1905b:148.
Type locality: AZ, Huachuca Mtns., Miller's Cyn. – Type depository: USNM (♂) (Lectotype designation: Fisher 1942:220).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:220 (♂, ♀), figs. 94, 125A (parts, ♂ genitalia).
Ecology: Fisher 1942 (biol., distr.); MacRae & Nelson 2003 (distr.).
Distribution: **USA**: AZ, NM, TX
Host(s): larvae in *Quercus arizonica* Sarg. and *Q. hypoleucoides* Camus; adults also on *Q. chrysolepis* Liebm.

bisinuata Chamberlin 1938a:13, figs. 12, 13 (parts).
Type locality: CA, Willows – Type depository: CASC 5503 (♀).
Taxonomy: Fisher 1942.

Redescription: Fisher 1942:42 (♀), fig. 7 (parts).
Distribution: **USA**: CA
Host(s): unknown.

bispinosa Schaeffer 1909:376.
Type locality: AZ, Santa Cruz County, Nogales – Type depository: USNM 42649 (♀).
Taxonomy: Fisher 1942; Westcott 1983.
Redescription: Fisher 1942:212 (♂, ♀), figs. 90, 124C (parts, ♂ genitalia); Westcott 1983:345, figs. 2, 17–24, 33 (adult, parts).
Ecology: Fisher 1942 (distr.); Nelson & Westcott 1976; Westcott 1983 (biol., distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): larvae in *Quercus hypoleucoides* Camus; adults also on *Q. arizonica* Sarg. and *Q. emoryi* Torr.

blanchardi Horn 1886 [syn. of *rotundicollis*]

boharti Van Dyke 1934:89 (♂, ♀).
Type locality: CA, Yosemite Nat. Park, Mt. Hoffman, 1100' – Type depository: CASC 3758 (♂).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:32 (♂), figs. 2, 111B (parts, ♂ genitalia).
Distribution: **USA**: CA
Host(s): unknown.

breviloba Fall 1910:51, fig. 1f (♂ protibia).
Type locality: CO, Boulder – Type depository: MCZC 24439 (♂).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:183 (♂, ♀), figs. 76, 122C (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1404 (♂).
Ecology: Fisher 1942; Barr & Westcott 1976; Davies 1991 (distr.); MacRae 2006 (biol., distr.).
Distribution: **Canada**: AB; BC; **USA**: AZ, CO, MT, NM, NV, SD, TX, UT, WY
Host(s): larvae in *Pinus edulis* Engelm., *P. flexilis* James, *P. ponderosa* Laws., *P. remota* (Little) D.K. Bailey & Hawksworth and *Pseudotsuga menziesii* (Mirb.) Franco.

breviloboides Barr 1969b:126 (♂, ♀), figs. 5, 12 (♂ genitalia, protibia).
Type locality: ID, Butte Co., Craters of the Moon Natl. Mon. – Type depository: CASC 10214 (♂).
Taxonomy: Barr 1969b.
Ecology: Barr 1969b (biol., distr.).
Distribution: **USA**: ID
Host(s): larvae in *Pinus flexilis* James.

burkei Chamberlin 1929 [syn. of *semisculpta*]

caddo Wellso & Manley 2007:15 (♂, ♀), figs. 11, 23, 35 (elytral sculpture, ♂ genitalia, ♀ pygidium).
Type locality: TX, Bastrop Co., Bastrop – Type depository: USNM (♂).
Taxonomy: Wellso & Manley 2007.
Ecology: Wellso & Manley 2007 (biol., distr.).
Distribution: **USA**: AZ, FL, LA, MO, NE, NM, OK, TX
Host(s): larvae in *Celtis reticulata* Torr. and *Pithecellobium ebano* (Berl.) Muller; adults also on *Celtis laevigata* Willd. and *Celtis* sp.

calcarata Chamberlin 1938 [syn. of *chamberliniana*]

calcarata Melsheimer 1845 [syn. of *cribraria*]

californica LeConte 1860:255.
Type locality: CA – Type depository: MCZC 2698 (♂).
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Horn 1886:93, figs. 110–114 (adult, parts); Fisher 1942:167 (♂, ♀), figs. 69, 121c (parts, ♂ genitalia).
Ecology: Fisher 1942 (biol., distr.); Barr 1971 (distr.).
Distribution: **USA**: CA, OR
Host(s): larvae in *Pinus jeffreyi* Grev. & Balf. and *P. ponderosa* Laws.

canadensis Chamberlin 1934 [syn. of *vulcanica*]

carinipennis LeConte 1878:459.
Type locality: UT, American Fork Cyn., 9500' – Type depository: MCZC 2697 (♂).
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Horn 1886:91, figs. 100–104 (adult, parts); Fisher 1942:189 (♂, ♀), figs. 79, 122F

(parts, ♂ genitalia).
Ecology: Fisher 1942; Barr 1971 (biol., distr.); Westcott 1990 (distr.).
Distribution: **Canada**: BC; **USA**: AZ, CO, ID, MT, NV, OR, UT, WA, WY
Host(s): larvae in *Pseudotsuga menziesii* (Mirb.) Franco; adults also on *Abies* sp.

carmelita Fall 1907:236.
Type locality: AZ – Type depository: MCZC 24440 (♂).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:108 (♂, ♀), figs. 40, 116D (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1386 (♂, ♀).
Ecology: Fisher 1942 (biol., distr.); Nelson 1959 (biol.).
Distribution: **USA**: AZ, CA
Host(s): adults on *Acacia greggii* Gray *Mimosa* sp. and *Olneya tesota* Gray.

caurina Horn 1886:92.
Type locality: NV – Type depository: MCZC 8116 (♂).
misidentificatoin: *laracis* of Chamberlin 1932, not *laricis* Van Dyke 1916.
synonym: *beeri* Barr 1969b:128, figs. 6, 13 (♂ genitalia, protibia) – Synonymy: Westcott 1990:327.
Type locality: OR, Lane Co., Horse Lake Ranger Station – Type depository: CASC 10215 (♂).
Taxonomy: Horn 1886; Fisher 1942; Barr 1974; Westcott 1990.
Redescription: Fisher 1942:161 (♂, ♀) (figs. of ♂ and many of the distributional records in Fisher 1942, refer to *leechi*).
Ecology: Westcott 1970 (distr.).
Distribution: **Canada**: BC; **USA**: CA, NV, OR, WA
Host(s): unknown.

caviventris Théry 1926 [syn. of *octocola*]

cercocarpi Westcott & Nelson 2000 [ssp. of *purpureovittata*]

chalcophoroides Horn 1886:110 (♀), figs. 203–206 (adult, parts).
Type locality: AZ – Type depository: MCZC 33797 (♀).
Taxonomy: Fisher 1942; Westcott 1983.
Redescription: Fisher 1942:210 (♀), fig. 89 (parts); Nelson 1967a:24 (♂), figs. 1–4 (parts, ♂ genitalia); Westcott 1983:351, fig. 6 (adult).
Ecology: Fisher 1942; Nelson 1967a; Nelson, *et al.* 1981; Westcott 1983 (biol., distr.).
Distribution: **USA**: AZ
Host(s): adults on *Quercus oblongifolia* Torr. (records as *Q. arizonica* Sarg. in error).

chamberlini Fisher 1942 [syn. of *chamberliniana*]

chamberlini Obenberger 1940 [syn. of *edwardsii*]

chamberliniana Fisher 1948:40 (replacement name for *chamberlini* Fisher 1942).
synonym: *calcarata* Chamberlin 1938a:12, figs. 9–11 (parts) (preoccupied: *calcarata* Melsheimer 1845).
Type locality: AZ, Prescott – Type depository: CASC 5493 (♂).
synonym: *chamberlini* Fisher 1942:40 (replacement name for *calcarata* Chamberlin 1938, preoccupied: *chamberlini* Obenberger 1940).
unavailable name: *trinuncupata* Helfer 1955:14 (unjustified replacement name for *chamberlini* Fisher 1942).
Taxonomy: Fisher 1942 (as *chamberlini*).
Redescription: Beer 1940 (♀ as *calcarata*); Fisher 1942:41 (♂), figs. 6, 111F (parts & ♂ genitalia as *chamberlini*).
Ecology: Beer 1940 (biol. as *calcarata*); Fisher 1942 (distr.& biol. as *chamberlini*).
Distribution: **USA**: AZ, OR
Host(s): adults on *Ceanothus cuneatus* (Hook.) Nutt.

characteristica Harris 1829 [syn. of *dentipes*]

chiricahuae Knull 1937b:37 (♂, ♀).
Type locality: AZ, Chiricahua Mtns. – Type depository: FMNH (♂).
Taxonomy: Knull 1937b; Westcott 1990.
Redescription: Fisher 1942:122 (♂, ♀), figs. 47, 117E (parts, ♂ genitalia).
Ecology: Fisher 1942 (biol., distr.); Nelson, *et al.* 1996 (distr.); Westcott 1990 (biol.).
Distribution: **USA**: AZ
Host(s): adults on *Pinus ponderosa* Laws.

chlorocephala Gory 1841:161, plate 27, fig. 156 (adult) (resurrected name).
Type locality: "Amer. Bor." – Type depository: MNHN (♂).
synonym: *concinnula* LeConte 1860:238 (erroneously described as ♀) – Synonymy: Nelson 1980a:88.
Type locality: MO – Type depository: MCZC 2708 (♂).
misidentification: *scitula* of authors, not *scitula* Gory 1841.
Taxonomy: Fisher 1942 (as *concinnula*); Nelson 1980a.
Redescription: Fisher 1942:227 (♂, ♀), figs. 96, 125E (parts & ♂ genitalia as *concinnula*).
Ecology: Fisher 1942 (as *concinnula*); Nelson 1960b (as *concinnula*); Nelson, *et al*. 1981; Nelson 1987a; MacRae 1991; Nelson, *et al*. 1996 (distr.); MacRae & Nelson 2003; MacRae 2006 (biol., distr.); Wellso & Jackman 2006 (biol.).
Distribution: **USA**: AR, DC, DE, GA, IL, IN, KS, LA, MD, MI, MO, NC, NJ, NY, OH, OK, PA, TN, VA
Host(s): larvae in *Amelanchier arborea* (Michx. f.) Fern., *Betula nigra* L., *Carya glabra* (Mill.) Sweet, *C. illinoinensis* (Wangenh.) K. Koch, *Quercus nigra* L., *Q. stellata* Wangenh. and *Vitis* sp.; adults also on *Quercus alba* L.

chrysoela (Illiger) 1800:122 (*Buprestis*).
Type locality: "Neu Georgien" – Type depository: SNMB.
synonym: *hybernata* (Fabricius) 1801:209 (*Buprestis*) – Synonymy: Horn 1886:121.
Type locality: "Carolina" – Type depository: unknown.
synonym: *viridipunctata* Gory & Laporte 1837:21, plate 4, fig. 31 (adult) – Synonymy: Horn 1886:121.
Type locality: "Amer. Bor." Type depository: MNHN (♂).
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Horn 1886:114, figs. 227–231 (adult, parts); Fisher 1942:218 (♂, ♀), figs. 93, 124F (parts, ♂ genitalia).
Ecology: Fisher 1942 (biol., distr.); Barr & Westcott 1976; Nelson, *et al*. 1981; Wellso & Jackman 2006 (biol.).
Distribution: **USA**: AL, DC, FL, GA, LA, MS, NC, SC, TX, VA
Host(s): larvae in *Betula nigra* L., *Carya illinoinensis* (Wangenh.) K. Koch, *Celtis laevigata* Willd., *Cercis canadensis* L., *Conocarpus erectus* L., *Diospyros virginiana* L., *Ficus* sp., *Juglans nigra* L., *Piscidia piscipula* (L.) Sarg., *Taxodium distichum* (L.) Rich., *Ulmus crassifolia* Nutt. and *Ximenia americana* L.; adults also on *Citrus paradisi* Macfad., *Morella cerifera* (L.) Small, "Privet" and *Quercus* sp.

cicatricosa Motschulsky 1852 [syn. of *trinervia*]

columbiana Barr 1969 [syn. of *rotundicollis*]

comanche Wellso & Manley 2007:14 (♂, ♀), figs. 10, 22, 34 (elytral sculpture, ♂ genitalia, ♀ pygidium).
Type locality: TX, Val Verde Co., 4 mi N. Comstock – Type depository: USNM (♂)
Taxonomy: Wellso & Manley 2007.
Ecology: Wellso & Manley 2007 (biol., distr.).
Distribution: **USA**: NM, TX, UT
Host(s): larva in *Juglans* sp.; adults on *Juglans microcarpa* Berland.

concinnula LeConte 1860 [syn. of *chlorocephala*]

contigua LeConte 1860 [syn. of *semisculpta*]

convexa Fall 1907:233.
Type locality: NM, Alamogordo – Type depository: ANSP 8216 (♀).
Taxonomy: Fisher 1942; Westcott 1990.
Redescription: Fisher 1942:231 (♂, ♀), figs. 99, 126A (parts, ♂ genitalia); Westcott 1990:fig. 8 (adult); Akiyama & Ohmomo 2000: fig. 1410 (♂, ♀).
Ecology: Westcott 1990 (biol., distr.).
Distribution: **USA**: NM, TX
Host(s): adults on *Viguiera stenoloba* Blake.

costifrons costifrons Waterhouse 1887a:45, plate 3, fig. 19 (adult).
Type locality: Mexico: N Sonora – Type depository: BMNH (♂) (Lectotype designation: Fisher 1942:197; redesignated: Westcott 1983:353).
misidentification: *aerea* of authors, not *aerea* Chevrolat 1834.
Immature stages: Benoit 1966a:325 (larva), fig. 2 (clypeus of larva).
Taxonomy: Horn 1886 (as *aerea*); Fisher 1942; Westcott 1983.

Redescription: Horn 1886:104 (♂, ♀), plate 6, figs. 173–177 (adult & parts as *aerea*); Fisher 1942:196 (♂, ♀), figs. 82, 123C (parts, ♂ genitalia); Westcott 1983:353, fig. 7 (adult).
Ecology: Fisher 1942; Cazier 1951b (distr.); Westcott 1983 (biol., distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): larvae in *Quercus arizonica* Sarg. and *Q. emoryi* Torr.

contigua LeConte 1860 [syn. of *semisculpta*]

crandalli Knull 1943b:34 (♂, ♀), figs. 1–6 (♂ genitalia, parts).
Type locality: AZ, Phoenix – Type depository: FMNH (♂).
Taxonomy: Knull 1943b.
Ecology: Nelson, *et al.* 1981 (distr.); Westcott 1990; MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, CA, NM, NV, UT
Host(s): adults on *Ambrosia acanthicarpa* Hook., *Bebbia juncea* (Benth.) Greene, *Chaenactis* sp., *Croton wigginsii* Wheeler, *Encelia actoni* Elmer, *Heliotropium curassavicum* L., *Hymenoclea* sp. and *Palafoxia arida* B. Turner & M. Morris.

cribraria Mannerheim 1837:77.
Type locality: PA – Type depository: UZMH (♀) (Lectotype designation: Nelson 1976:168).
synonym: *floricola* Gory 1841:179, plate 30, fig. 175 (adult) – Synonymy: Nelson 1980a:88.
Type locality: "Amer. Bor." – Type depository: MNHN (♂).
synonym: *calcarata* Melsheimer 1845:146 – Synonymy: Horn 1886:119.
Type locality: PA – Type depository: MCZC.
misidentification: *femorata* of authors, not *femorata* Oliver 1790.
synonym: *lata* Kerremans 1899:336 – Synonymy: Westcott 1990:330.
Type locality: FL – Type depository: BMNH.
Taxonomy: Horn 1886; Fisher 1942 (both as *floricola*).
Redescription: Horn 1886:81 (♂, ♀), figs. 45–50 (adult, parts); Knull 1925: plate 5, fig. 2 (adult); Fisher 1942:128 (♂, ♀), figs. 51, 118C (parts & ♂ genitalia all as *floricola*).
Ecology: Fisher 1942 (as *floricola*); Bright 1987; MacRae 1991; Nelson, *et al.* 1981; Nelson 1987a; Davies 1991; Nelson, *et al.* 1996; Westcott 2001b (distr.); MacRae 2006 (biol., distr.).
Distribution: **Canada**: AB, MB,ON, PQ, SK, NT; **USA**: AL, AR, CT, DC, DE, FL, GA, IL, IN ,LA, MA, MD, MI, MN ,MS, NC, ND, NH, NJ, NY, OH, OK, PA, SC, TX, VA, WI, WV
Host(s): larvae in *Pinus echinata* Mill., *P. palustris* Mill., *P. resinosa* Soland., *P. rigida* Mill., *P. strobus* L., *P. sylvestris* L. and *P. taeda* L.

culbersoniana Knull 1943b:34 (♂), figs. 7–11 (♂ genitalia, parts).
Type locality: TX, Culberson Co. – Type depository: FMNH (♂).
Taxonomy: Knull 1943b; Westcott 1990.
Redescription: Westcott 1990:331, figs. 3, 13 (adult ♀).
Ecology: Westcott 1990; Davidson & Davidson 2005 (biol., distr.).
Distribution: **USA**: NM, TX
Host(s): adults on *Acacia constricta* Benth., *A. greggii* Gray and *Quercus* sp.

cuprascens LeConte 1860:234.
Type locality: NM, Santa Fe – Type depository: MCZC 2695 (♂).
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Horn 1886:81, figs. 40–44 (adult, parts); Fisher 1942:86 (♂, ♀), figs. 29, 114F (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1376 (♂, ♀).
Ecology: Fisher 1942; Barr 1969a (biol., distr.); Nelson, *et al.* 1981 (biol.).
Distribution: **USA**: AZ, CO, NM, NV, UT
Host(s): larvae in *Pinus monophylla* Torr. & Frem.; adults also on *Juniperus osteosperma* (Torr.) Little, *Pinus leiophylla* Scheide & Deppe var. *chihuahuana* (Engelm.) Shaw and *P. ponderosa* Laws.

cupreoaenea Gory & Laporte 1837 [syn. of *acutipennis*]

cupreohumeralis Van Dyke 1934 [syn. of *humilis*]

cupressicona Barr & Westcott 1976:141 (♂, ♀), figs. 1–6 (parts, ♂ genitalia).
Type locality: CA, S. L. O. Co., Santa Lucia Range, 2 mi NW Cuesta Pass – Type depository: CASC 12638/EMEC 69308 (♂).
misidentification: *purpurata* of authors, not *purpurata* Bland 1864.
Taxonomy: Barr & Westcott 1976.
Ecology: Powell 1965 (biol. as *purpurata*); Barr & Westcott 1976 (biol., distr.).

Distribution: **USA**: CA
Host(s): larvae in cones of *Cupressus goveniana* Gord. and *C. sargentii* Jeps.

cyanella Horn 1886:102 (♂, ♀), figs. 164–168 (adult, parts).
Type locality: CA – Type depository: MCZC 8121 (♂).
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Fisher 1942:30 (♂, ♀), figs. 1, 111A (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1419 (♂ & ♀ as *cyanela*, *lapsus calami*).
Ecology: Fisher 1942 (biol., distr.).
Distribution: **USA**: CA, OR
Host(s): larvae in roots of *Eriogonum nudum* Benth.

debilis LeConte 1860:236.
Type locality: OH (probably an error) – Type depository: MCZC 2686 (♂)
synonym: *disjuncta* LeConte 1860:236 – Synonymy: Horn 1886:75.
Type locality: AZ – Type depository: MCZC 2687 (♂).
Immature stages: Benoit 1966a:325 (larva).
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Horn 1886:75 (♂, ♀), figs. 15–19 (adult, parts); Fisher 1942:72 (♂, ♀), fig. 23 (parts); Akiyama & Ohmomo 2000: fig. 1372 (♂, ♀).
Ecology: Fisher 1942; Nelson & Westcott 1976 (biol., distr.).
Distribution: **USA**: AZ, CA, NV, UT; also recorded from Mexico.
Host(s): larvae in *Acacia greggii* Gray, *Celtis laevigata* Willd. var. *reticulata* (Torr.) L. Benson, *Cercidium floridum* Gray, *Prosopis glandulosa* Torr., *Quercus emoryi* Torr. and *Salix* sp.

deleta LeConte 1860 [syn. of *subcylindrica*]

denticulata Gory & Laporte 1837 [syn. of *tranquebarica*]

dentipes (Germar) 1824:38 (*Buprestis*).
Type locality: "Amer. Bor." – Type depository: ZMHB
synonym: *characteristica* Harris 1829:2 – Synonymy: LeConte 1860:235.
Type locality: none given – Type depository: MCZC? (Lectotype not designated).
unavailable name: *maculicornis* LeConte (manuscript name, *nomen nudem*) – Synonymy: Kerremans 1892:211.
synonym: *planata* Gory & Laporte 1837:56, plate 10, fig. 77 (adult) – Synonymy: LeConte 1860:235.
Type locality: "Amer. Bor." – Type depository: MNHN (Lectotype not designated).
synonym: *posticalis* Gory & Laporte 1837:56, plate 10, fig. 76 (adult) – Synonymy: Horn 1886:120.
Type locality: 'Amer. Bor." – Type depository: MNHN (♂) (Lectotype not designated).
misidentification: *rotundicollis* of authors, not *rotundicollis* Gory & Laporte 1837.
Immature stages: Benoit 1964:1112, fig. 19 (larva).
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Horn 1886:87 (♂, ♀), plate 3, figs. 75–79 (adult, parts); Good 1925: plate 9, fig. 13 (wing); Fisher 1942:147 (♂, ♀), figs. 59, 119F (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1396 (♂, ♀).
Ecology: Howden & Vogt 1951; Nelson & Westcott 1976; Dearborn & Donahue 1993 (biol.); MacRae & Nelson 2003 (distr.); MacRae 2006 (biol., distr.).
Distribution: Pine regions of Canada & USA; also recorded from Mexico. and the West Indies.
Host(s): larvae in *Abies balsamea* (L.) Mill., *Larix laricina* (DuRoi) K. Koch, *Pinus ponderosa* Laws. and *P. strobus* L.; adults also on *P. contorta* Loud., *P. echinata* Mill., *P. elliotii* Engelm., *P. palustris* Mill., *P. parryana* Engelm. and *P. virginiana* Mill.

deserta Horn 1886:100, plate 5, figs. 155–158.
Type locality: CA, Mojave Desert – Type depository: MCZC (♂) (Lectotype designation: Fisher 1942:44).
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Fisher 1942:44 (♂, ♀), figs. 8, 112A (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1368 (♂).
Ecology: Fisher 1942 (biol., distr.); Nelson 1962 (biol.).
Distribution: **USA**: CA, UT
Host(s): larvae in roots of *Atriplex* sp.; adults also on *A. polycarpa* (Torr.) S. Wats.

difficilis LeConte 1873 [syn. of *sexsignata*]

disjuncta LeConte 1860 [syn. of *debilis*]

distincta Gory 1841:176, plate 30, fig. 1171 (adult).
Type locality: Mexico – Type depository: MNHN (Lectotype not designated).
Taxonomy: Knull 1949.
Redescription: Knull 1949:104 (♂, ♀), figs. 4–9 (parts, ♂ genitalia).
Ecology: Knull 1949 (distr.).
Distribution: USA (?); also recorded from Mexico.
Host(s): unknown.

dolata Horn 1886:87 (♀), figs. 71–74 (adult, parts).
Type locality: NV – Type depository: MCZC 33793 (♀) (Lectotype designation: Fisher 1942:149).
Immature stages: Benoit 1966a:326 (larva).
Taxonomy: Fisher 1942.
Redescription: Chamberlin 1917a:137 (♂); Fisher 1942:148 (♂, ♀), figs. 60, 120A (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1397 (♀)
Ecology: Fisher 1942; Barr 1971 (biol., distr.).
Distribution: **USA**: CA, ID, NV, OR, WA
Host(s): larvae in *Abies concolor* (Gord. & Glend.) Lindl., *Pinus ponderosa* Laws. and *Pseudotsuga menziesii* (Mirb.) Franco; adults also on *Larix occidentalis* Nutt., *Pinus contorta* Loud., *P. jeffreyi* Grev. & Balf. and . *P. lambertiana* Dougl.

dudleyaphaga Westcott 2007b:24 (♂, ♀), figs. 1–6 (adults, ♂ genitalia, larva, pupal cells, exit hole).
Type locality: Mex., Baja Calif. N., 9.3 mi SW Colonet – Type depository: CASC 18332 (♂).
Taxonomy: Westcott 2007.
Ecology: Westcott 2007 (biol., distr.).
Distribution: **USA**: CA; also recorded from Mexico: BCN.
Host(s): larvae reared from *Dudleya* sp.; adults also on *Eriogonum fasciculatum* (Benth.) T. & G.

edwardsii Horn 1886:74 (♀), figs. 11–14 (adult, parts).
Type locality: AZ, Tucson – Type depository: MCZC 33791 (♀)
synonym: *chamberlini* Obenberger 1940:93, fig. 5 (♂ protibia) – Synonymy: Barr & Westcott 1976:145.
Type locality: "California m." – Type depository: NMPC (♂).
Immature stages: Benoit 1966a:326 (larva), figs. 1, 5 (ocellus, abdominal spiracle).
Taxonomy: Fisher 1942; Barr & Westcott 1976.
Redescription: Fisher 1942:75 (♂, ♀), figs. 24, 114A (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1373 (♀).
Ecology: Fisher 1942 (biol., distr.); Nelson 1959; Barr & Westcott 1976 (biol.); Westcott, *et al.* 1990 (distr.).
Distribution: **USA**: AZ, CA, NM ,TX; also recorded from Mexico.
Host(s): larvae in *Fouquieria splendens* Engelm.; adults also on *Acacia greggii* Gray and *Cercidium floridum* Gray.

ephedrae ephedrae Knull 1942:390 (♂, ♀), figs. 1–6 (♂ genitalia).
Type locality: NM, Las Cruces – Type depository: FMNH (♂).
Taxonomy: Knull 1942.
Redescription: Akiyama & Ohmomo 2000: fig. 1369 (♂ ♀).
Ecology: Knull 1942; Nelson, *et al.* 1981; Davidson & Davidson 2005 (distr., biol.).
Distribution: **USA**: NM, TX
Host(s): adults on *Ephedra trifurca* Torr.

ephedrae vogti Knull 1964:376 (♂)
Type locality: TX, Starr Co., 5 mi W Sullivan City – Type depository: FMNH (♂).
Taxonomy: Vogt 1949b:196 (as *ephedrae*); Knull 1964.
Ecology: Vogt 1949b (as *ephedrae*); Knull 1970 (biol.).
Distribution: **USA**: TX
Host(s): adults on *Acacia rigidula* Benth. and *Ephedra* sp.

eriogoni Westcott 2005:15 (♂, ♀), figs. 1–6 (adult, ♂, ♀ abdominal ventrites, ♂ genitalia).
Type locality: OR, Wasco Co., I80N, 2.8 mi W Rowena – Type depository: CASC 18049 (♂).
Taxonomy: Westcott 2005.
Ecology: Westcott 2005, fig. 6 (larvae in host root).
Distribution: **USA**: OR, WA

Host(s): larvae in *Eriogonum compositum* Benth. var. *compositum* and *E. elatum* Benth.; adults on same species.

exesa LeConte 1858:68.

Type locality: CA, Colorado River – Type depository: MCZC 2701 (♀) (Lectotype designation: Fisher 1942:145).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Horn 1886:95 (♂, ♀), plate 4, figs. 125–129 (adult, parts); Fisher 1942:144 (♂, ♀), figs. 58, 119E (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1395 (♀).

Ecology: Fisher 1942; Van Dyke 1942 (distr.); Vogt 1949b; Westcott 1990 (biol.); MacRae 2006 (biol., distr.).

Distribution: **USA**: AZ, CA, NM, TX; also recorded from Mexico.

Host(s): larvae in *Acacia greggii* Gray, *Celtis* sp., *Prosopis glandulosa* Torr. and *Salix* sp.

falli Van Dyke 1918:56 (♂, ♀).

Type locality: CA, Placer Co., Donner Lake – Type depository: CASC 3283 (♂).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:180 (♂, ♀), figs. 75, 122B (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1403 (♂).

Ecology: Fisher 1942 (biol., distr.).

Distribution: **USA**: CA, OR

Host(s): larvae in *Pinus contorta* Loud.; adults also on *P. jeffreyi* Grev. & Balf. and *P. ponderosa* Laws.

femorata (Olivier) 1790:47, plate 11, fig. 121 (adult) (*Buprestis*).

Type locality: GA, Fort Valley, April, 1905 – Type depository: USNM (♂) (Neotype designation: Wellso & Manley 2007:10).

misidentification: *dentipes* of Gory & Laporte 1837:52, plate 9, fig. 70 (adult), not *dentipes* Germar 1824) – Synonymy: Kerremans 1903:187.

Type locality:"Amer. Bor." – Type depository: MNHN.

synonym: *dissimilis* Gory 1841:181, plate 31, fig. 177 (adult) – Synonymy: Kerremans 1903:187.

Type locality: "Amer. Bor." – Type depository: MNHN (?).

synonym: *insculpta* (Herbst) 1801:145, plate 146, fig. 10 (*Buprestis*) – Synonymy: Schönherr 1817:235.

Type locality: recorded as Germany (probably an error) – Type depository: not known.

synonym: *nigritula* Gory & Laporte 1837:54, plate 10, fig. 73 (adult) – Synonymy: Kerremans 1903:187.

Type locality: PA, Philadelphia – Type depository: MNHN (♀).

synonym: *obscura* LeConte 1860:232 – Synonymy: Kerremans 1903:187.

Type locality: "southern & western states" – Type depository: MCZC 2691.

misspelling: *semisculpta* Crotch 1873:90 (probably a typographical error for *insculpta*; not *semisculpta* Leconte 1860).

Immature stages: Benoit 1964:1112, figs. 18, 25 (larva).

Taxonomy: Horn 1886; Fisher 1942; Wellso & Manley 2007.

Redescription: Fisher 1942:133 (♂, ♀), figs. 53, 119A (parts, ♂ genitalia); Barr 1971: plate 8, fig. 2 (adult); Akiyama & Ohmomo 2000: fig. 1394 (♀);Wellso & Manley 2007:10 (♂, ♀), figs. 8, 20, 32 (elytral sculpture, ♂ genitalia, ♀ pygidium).

Ecology: Fisher 1942; Vogt 1949b (biol.); Cazier 1951b; Nelson 1987a; Davies 1991 (distr.); Solomon 1995 (biol., distr.); Westcott 2005 (distr. for *quadriimpressa*); Wellso & Manley 2007 (biol., distr.).

Distribution: **Canada**: AB, BC, MB, NB, NS, ON, PQ, SK; **USA**: all continental states; also recorded from Mexico.

Host(s): larvae in *Acer negundo* L., *A. rubrum* L., *A. saccharinum* L., *Amelanchier arborea* (Michx. f.) Fern., *Carpinus carolineana* Walt., *C. japonica* Bl., *Carya illinoinensis* (Wangenh.) K. Koch, *Castanea dentata* (Marsh.) Borkh., *Celtis occidentalis* L., *Cercis canadensis* L., *C. japonica* Siebold ex Planch., *Crataegus* sp., *Cydonia oblonga* Mill., *Diospyros virginiana* L., *Fraxinus pennsylvanica* Marsh., *Juglans cinerea* L., *J. nigra* L., *Liquidambar styraciflua* L., *Malus* spp., *Platanus occidentalis* L., *Populus tremuloides* Michx., *Prunus armeniaca* L., *P. domestica* L., *P. persica* (L.) Batsch., *Quercus agrifolia* Née, *Q. alba* L., *Q. kelloggii* Newb., *Q. laurifolia* Michx., *Q. lobata* Née, *Q. wislizeni* A. DC., *Salix lasiolepis* Benth., *Sorbus americana* Marsh., *Tilia glabra* Vent., *Ulmus americana* L. and *U. parvifolia* Jacq.

fiskei Fisher 1942:221 (♂, ♀), fig. 125B (♂ genitalia).
Type locality: TX, Montell – Type depository: USNM 55298 (♂).
Taxonomy: Fisher 1942.
Ecology: Barr & Westcott 1976; Westcott, *et al*. 1990; Nelson, *et al*. 1996; MacRae & Nelson 2003 (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: OK, TX; also recorded from Mexico.
Host(s): larvae in *Cercis canadensis* L. var. *texensis* (S. Wats.) ♂ Hopkins and *Quercus pungens* Liebm. var. *vaseyana* (Buckl.) C.H. Muller.

floricola Gory 1841 [syn. of *cribraria*]

fragariae Fisher 1930C:149.
Type locality: WA, Grand Mound – Type depository: USNM 43175 (♂).
misidentification: *deleta* of authors, not *deleta* LeConte 1860.
misidentification: *pubescens* of authors, *pubescens* not Fall 1907.
Taxonomy: Fisher 1930c; 1942.
Redescription: Fisher 1942:49 (♂, ♀), figs. 11, 112D (parts, ♂ genitalia); Barr 1971: plate 8, fig. 1 (adult).
Ecology: Fisher 1942; Barr 1971 (biol., distr.).
Distribution: **USA**: OR, WA
Host(s): larvae in *Eriogonum compositum* Benth., *Fragaria chiloensis* (L.) Duchesne and *Fragaria* sp.

gemmata LeConte 1858:67.
Type locality: Mexico: Sonora. Type depository: MCZC 2704 (♀) (Lectotype designation: Fisher 1942:208).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:208 (♂, ♀), figs. 87, 124B (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1408 (♂ ♀).
Ecology: Fisher 1942; Westcott, *et al*. 1990 (distr.); Solomon 1995 (biol., distr.).
Distribution: **USA**: AZ NM; also recorded from Mexico.
Host(s): larvae in *Prosopis glandulosa* Torr.

grandis Chamberlin 1938 [syn. of *monticola*]

grindeliae Van Dyke 1937:111 (♂, ♀).
Type locality: CA, Solano Co., Fairfield – Type depository: CASC 4248 (♂).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:47 (♂, ♀), figs. 10, 112C (parts, ♂ genitalia).
Ecology: Fisher 1942 (biol., distr.); Westcott 2001b (biol.).
Distribution: **USA**: CA
Host(s): larvae in *Gutierrezia californica* (DC.) T. & G.; adults also on *Grindelia camporum* Greene.

harrisi Hentz 1827:373 (*Buprestis*), fig. 1 (adult).
Type locality: MA – Type depository: MCZC? (probably destroyed).
misidentification: *chalcophoroides* of Smith 1887:39, not *chalcophoroides* Horn 1886:110.
misspelling: *harrissi* (*lapsus calami*).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:120 (♂, ♀), figs. 46, 117D (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1390 (♂ ♀).
Ecology: Fisher 1942; Nelson, *et al*. 1981; Bright 1987 (biol., distr.); Nelson & MacRae 1990; Davis 1991; Nelson, *et al*. 1996 (distr.); Westcott 2005 (distr.).
Distribution: **Canada**: AB, BC,MB, NB, NS, ON, PQ; **USA**: AL, CT, DC, FL, GA, MA, MD, ME, MI, MN, NC, NH, PA, RI, SC, SD, TN, VA, WI, WV
Host(s): larvae in *Picea glauca* (Moench) Voss, *Pinus strobus* L.,and *P. virginiana* Mill.

helferi Fisher 1942:92 (♂, ♀), figs. 32, 115C (parts, ♂ genitalia).
Type locality: CA, Los Angeles Co. – Type depository: USNM 55294 (♂).
Taxonomy: Fisher 1942.
Redescription: Akiyama & Ohmomo 2000: fig. 1381 (♀).
Ecology: Fisher 1942 (biol., distr.); Nelson 1967a (distr.).
Distribution: **USA**: CA; also recorded from Mexico.
Host(s): larvae in *Juniperus californica* Carr.

hidalgoensis Knull 1951:87 (♂, ♀), figs. 2–7 (parts, ♂ genitalia).
Type locality: TX, Hidalgo Co., near Mission – Type depository: FMNH (♂).
Taxonomy: Knull 1951.
Distribution: **USA**: TX
Host(s): unknown.

horningi Barr 1969b:117 (♂, ♀), figs. 1, 8 (♂ genitalia, protibia).
Type locality: ID, Butte Co., Craters of the Moon Natl. Mon. – Type depository: CASC 10211 (♂).
Taxonomy: Barr 1969b.
Ecology: Barr 1969b (biol., distr.).
Distribution: **USA**: ID
Host(s): adults on *Eriogonum ovalifolium* Nutt. var.*depressum* Blank.

hubbardi Fisher 1942:174, fig. 72 (parts).
Type locality: FL, Crescent City – Type depository: USMN 55296 (♀).
Taxonomy: Fisher 1942; Westcott 1990.
Redescription: Westcott 1990, fig. 6 (♀).
Ecology: Nelson, *et al.* 1981; Westcott 1990 (distr.).
Distribution: **USA**: FL, SC
Host(s): unknown.

humilis Horn 1886:102 (♀), figs. 169–172 (adult, parts).
Type locality: AZ – Type depository: MCZC 33795 (♀).
synonym: *cupreohumeralis* Van Dyke 1934:65 (♂ described as ♀) – Synonymy: Nelson 1965:38.
Type locality: TX, El Paso – Type depository: CASC 3757 (♂).
Taxonomy: Nelson 1965.
Redescription: Fisher 1942:67 (♀), 68 (♂ as *cupreohumeralis*), figs. 20, 21 113E (parts, ♂ genitalia).
Ecology: Nelson 1960b; Knull 1964; Hespenheide 1976 (biol.); Nelson 1987a (distr.); Westcott 2005 (distr.).
Distribution: **USA**: AZ, CA, NM, NV, TX; also recorded from Mexico.
Host(s): larvae in *Acacia greggii* Gray.

hybernata (Fabricius 1801) [syn. of *chrysoela*]

idahoensis Barr 1969b:124 (♂, ♀), figs. 4. 11 (♂ genitalia, protibia).
Type locality: ID, Blaine Co., Alturas Lake – Type depository: CASC 10213 (♂).
Taxonomy: Barr 1969b.
Ecology: Barr 1969; 1971 (biol., distr.); Westcott 1990 (distr.).
Distribution: **USA**: ID, NV
Host(s): adults on *Eriogonum ovalifolium* Nutt. and *E. umbellatum* Torr.

ignicollis Horn 1885:145.
Type locality: CO – Type depository: MCZC 8112 (♂) (Lectotype designation: Fisher 1942:95).
synonym: *scotti* Chamberlin 1938a:11, figs. 5–8 (parts) – Synonymy: Fisher 1942:94.
Type locality: NM, Taos – Type depository: CASC 5494 (♂).
Immature stages: Benoit 1966a:327 (larva).
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Horn 1886:82 (♂, ♀), plate 3, figs. 51–55 (adult, parts); Fisher 1942:94 (♂, ♀), figs. 33, 115D (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1379 (♂).
Ecology: Fisher 1942; Powell 1965; Barr 1971; Wellso 1974 (biol.); Barr & Westcott 1976; Westcott, *et al.* 1990 (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, CA, CO, ID, KS, NM, NV, TX, UT; also recorded from Mexico.
Host(s): larvae in *Chamaecyparis* sp., *Cupressus arizonica* Greene, *Juniperus californica* Carr., *J. deppeana* Steud., *J. monosperma* (Engelm.) Sarg., *J. osteosperma* (Torr.) Little, *J. scopulorum* Sarg., *J. virginiana* L. and *Vauquelinia californica* (Torr.) Sarg.

impressa (Fabricius 1787) [syn. of *tranquebarica*]

iris Van Dyke 1937:110 (♂, ♀).
Type locality: UT, near St. George – Type depository: CASC 4246 (♂).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:99 (♂, ♀), figs. 35, 115F (parts, ♂ genitalia).
Ecology: Fisher 1942; Nelson, *et al.* 1996 (biol., distr.).
Distribution: **USA**: AZ, NV, TX, UT

Host(s): adults on *Juniperus osteosperma* (Torr.) Little and *J. deppeana* Steud.

juniperinus Chamberlin 1925 [syn. of *lilaceous*]

kelloggi Knull 1937b:36.
Type locality: NM, Silver City – Type depository: FMNH (♂).
Taxonomy: Knull 1937b; Nelson 1987b; Westcott 2001.
Redescription: Fisher 1942:125 (♂), figs. 49, 118A (parts, ♂ genitalia); Nelson 1987b:70 (♀), figs. 1–3 (parts); Westcott 2001:78.
Ecology: Westcott 2001 (biol., distr.).
Distribution: **USA**: AZ, NM
Host(s): adults on *Juniperus* sp.

knulli Nelson 1975a:23 (♂, ♀), figs. 1, 16, 28 (adult, ♂ genitalia).
Type locality: AZ, Cochise Co., 2 mi E Portal – Type depository: USNM 72503 (♂).
misidentification: *multistigmosa* of authors (in part), not *multistigmosa* Mannerheim 1837.
Taxonomy: Nelson 1975a.
Ecology: Nelson 1975a (biol.).
Distribution: **USA**: AZ, NM; also recorded from Mexico.
Host(s): adults on *Acacia constricta* Benth.

laricis Van Dyke 1916:409.
Type locality: OR, Grant Co., Sumpter – Type depository: CASC 3352 (♂).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:185 (♂, ♀), figs. 77, 122D (parts, ♂ genitalia).
Ecology: Fisher 1942; Barr 1971 (biol.); Barr & Westcott 1976 (distr.); Westcott 1990 (biol., distr.); 2005 (distr.).
Distribution: **Canada**: AB, BC, NT; **USA**: AZ, CO, ID, MT, NM, OR, UT, WA, WY
Host(s): adults on *Abies* sp., *Larix occidentalis* Nutt., *Picea engelmannii* Engelm., *Pinus contorta* Loud., *P. c.* var. *murrayana* (Grev. & Balf.) Critchf., *P. ponderosa* Laws. and *Pseudotsuga menziesii* (Mirb.) Franco.

lata Kerremans 1899 [syn. of *cribraria*]

lateralis Waterhouse 1887:47, plate 3, fig. 20 (adult).
Type locality: Mexico: N. Sonora – Type depository: BMNH.
misidentification: *debilis* of authors (in part), not *debilis* LeConte 1860.
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:106 (♂, ♀), figs. 39, 116C (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1384 (♂ ♀).
Ecology: Fisher 1942; Cazier 1951b; Nelson & Westcott 1976 (distr.); Davidson & Davidson 2005; MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, CA, NM, TX; also recorded from Mexico.
Host(s): larvae in *Acacia greggii* Gray, *Prosopis glandulosa* Torr. and *Vauquelinia californica* (Torr.) Sarg.; adults also on *Acacia greggii* Gray and *Mimosa* sp.

leechi Barr 1974:3.
Type locality: CA, Truckee – Type depository: CASC 12300 (♂).
misidentification: *caurina* of authors (in part), not *caurina* Horn 1886.
Taxonomy: Barr 1974.
Redescription: Fisher 1942: figs. 66, 120F (♂ parts & ♂ genitalia as *caurina*).
Ecology: many distributional and host records for *caurina* in Fisher 1942 (as *leechi*); Powell 1965:136 (biol. as *caurina*); Bright 1987; Westcott 1990; Davies 1991 (distr.); MacRae 2006 (biol., distr.).
Distribution: **Canada**: AB, BC; **USA**: CA, ID, MT, NV, OR, WA
Host(s): larvae in *Pinus aristata* Engelm. and *P. ponderosa* Laws.

libonoti Horn 1886:108 (♂, ♀), plate 6, figs. 193–197 (adult, parts).
Type locality: AZ – Type depository: MCZC 8122 (♂).
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Fisher 1942:194 (♂, ♀), figs. 81, 123B (parts, ♂ genitalia).
Ecology: Fisher 1942 (biol., distr.); Nelson & Westcott 1976 (biol.); Nelson, *et al.* 1981 (distr.).
Distribution: **USA**: AZ, CO, NM
Host(s): larvae in *Quercus arizonica* Sarg., *Q. hypoleucoides* Camus and *Q. oblongifolia* Torr.

lilaceous Chamberlin 1925a:190.
Type locality: OR, 6 mi W Klamath Falls – Type depository: CASC? (♀).
synonym: *juniperinus* Chamberlin 1925a:192 – Synonymy: Barr 1971:77.
misspelling: *lilacea* Obenberger 1934a:639 (error).
Type locality: OR, Harney Co., Stein Mtns., 7500' – Type depository: CASC 5496 (♂).
Taxonomy: Barr 1971.
Redescription: Fisher 1942:136 (♂, ♀), figs. 54, 55, 119B (parts & ♂ genitalia as *juniperinus*).
Ecology: Fisher 1942; Barr 1971 (biol., distr.).
Distribution: **USA**: CA, ID, OR
Host(s): adults on *Juniperus occidentalis* Hook. and *J. scopulorum* Sarg.

lineatipennis Van Dyke 1916:411 (as variety of *mali*).
Type locality: CA, Santa Monica Hills, near Santa Monica – Type depository: CASC 3351 (♂).
Taxonomy: Van Dyke 1923; Fisher 1942.
Redescription: Fisher 1942:58 (♀), fig. 15 (parts); Westcott 1990, fig. 12 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 1371 (♂, ♀).
Ecology: Nelson 1960b; Nelson, *et al*. 1981 (biol.).
Distribution: **USA**: CA
Host(s): larvae in *Eriogonum fasciculatum* (Benth.) T. & G. and *E. inflatum* Torr. & Frem.

lixa Horn 1886:101 (♂, ♀), plate 5, figs. 159–163 (adult, parts).
Type locality: TX – Type depository: MCZC 8120 (♀).
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Fisher 1942:34 (♂, ♀), figs. 3, 111C (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1366 (♀).
Ecology: Fisher 1942 (biol., distr.); Van Dyke 1942; Vogt 1949b; Cazier 1951b (distr.); Walters & Bellamy 1990 (biol.).
Distribution: **USA**: AZ, TX; also recorded from Mexico.
Host(s): adults on *Jatropha multifida* L., *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby, *Prosopis glandulosa* Torr. and *Sphaeralcea* sp.

lucana Horn 1894:367.
Type locality: Mexico, Baja CA, San José del Cabo – Type depository: CASC 21, 22 (♀) (Lectotype not designated).
Immature stages: Benoit 1966a:328 (larva), fig. 6 (dorsal abd. ampullae).
Taxonomy: Fisher 1942.
Redescription: Van Dyke 1942: fig. 1 (adult); Fisher 1942:239 (♂, ♀), figs. 104, 126D (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1416 (♂, ♀).
Ecology: Barr 1971; Nelson, *et al*. 1981 (biol.).
Distribution: **USA**: AZ, CA, OR; also recorded from Mexico.
Host(s): larvae in *Simmondsia chinensis* (Link.) C.K. Schneid.; adults also on *Acacia greggii* Gray, *Ceanothus crassifolius* Torr., *C. cuneatus* (Hook.) Nutt., *C. integerrimus* H. & A., *C. oliganthus* Nutt., *C. greggii* Gray var. *perplexans* (Trel.) Jeps.,*Cercidium floridum* Gray, *Juniperus* sp., *Larrea tridentata* (DC.) Cov., *Mimosa* sp., *Psorothamnus spinosus* (Gray) Barneby, *Quercus arizonica* Sarg. and *Q. emoryi* Torr.

ludificata Horn 1886:88 (♂, ♀), plate 3, figs. 80–84 (adult, parts).
Type locality: CO – Type depository: MCZC 8115 (♂) (Lectotype designation: Fisher 1942:152).
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Fisher 1942:150 (♂, ♀), figs. 61, 120B (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1398 (♀).
Ecology: Fisher 1942; Cazier 1951b; Westcott 1971a (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, CA, CO, NM, NV, UT; also recorded from Mexico.
Host(s): larvae in *Pinus edulis* Engelm., *P. ponderosa* Laws. and *Pseudotsuga menziesii* (Mirb.) Franco.; adults also on *Picea pungens* Engelm. and *Pinus flexilis* James.

mali Horn 1886:97 (♂, ♀), plate 5, figs. 135–139 (adult, parts).
Type locality: CA – Type depository: MCZC 8118 (♂) (Lectotype designation: Fisher 1942:56).
misidentification: *deleta* of authors, not *deleta* LeConte 1860.
Immature stages: Burke & Böving 1929 (life cycle), 9 figs. (larva, pupa); Benoit 1966a:328 (larva).
Taxonomy: Horn 1886; Fisher 1942.

Redescription: Fisher 1942:55 (♂, ♀), figs. 14, 113A (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1370 (♀).

Ecology: Fisher 1942; Brown & Eads 1965 (biol.); Barr 1971; Bright 1987; Davies 1991; Solomon 1995; MacRae & Nelson 2003 (distr.); MacRae 2006 (distr., biol.).

Distribution: **Canada**: AB, BC, MB, SK; **USA**: AZ, CA, CO, ID, MN, ND, NM, NV, OR, TX, UT, WA, WY

Host(s): larvae in *Acer negundo* L., *A. macrophyllum* Pursh, *A. pseudoplatanus* L., *A. rubrum* L., *A. saccharinum* L., *Adenostoma fasciculatum* H. & A., *Aesculus hippocastanum* L., *Alnus rhombifolia* Nutt., *Arbutus menziesii* Pursh, *Arctostaphylos tomentosa* (Pursh) Lindl., *Betula* sp., *Ceanothus crassifolius* Torr., *C. oliganthus* Nutt. var *sorediatus* (H. & A.) Hoover, *Cerasus* sp., *Cercocarpus betuloides* T. & G., *Corylus* sp., *Cotoneaster horizontalis* Decne., *Crataegus* x*lavallei* Herincq ex Lavallee 'Carrierei', *Cydonia oblonga* Mill., *Eriobotrya japonica* (Thunb.) Lindl., *Eucalyptus globulus* Labill., *Fagus sylvatica* L., *Ficus* sp., *Juglans regia* L., *Laurocerasus* sp., *Liriodendron* sp., *Malus* sp., *Oemleria cerasiformis* (H. & A.) Landon, *Persea* sp., *Photinia serratifolia* (Desf.) Kalkm., *Pickeringia montana* Nutt., *Platanus orientalis* L., *Populus deltoides* Bartr. ex Marsh., *P. nigra* L., *Prosopis glandulosa* Torr., *Prunus americana* Marsh., *P. armeniaca* L., *P. avium* (L.) L., *P. cerasifera* Ehrh., *P. cerasus* L., *P. domestica* L., *P. dulcis* (Mill.) D.A. Webb, *P. ilicifolia* (Nutt.) Walp., *P persica* (L.) Batsch., *P. serrulata* Lindl., *P. subcordata* Benth., *P. subhirtella* Miq. 'Shidarehigan', *Pyracantha coccinea* Roemer, *Pyrus communis* L., *Quercus agrifolia* Née, *Q. kelloggii* Newb., *Q. wislizeni* A. DC., *Rhamnus crocea* Nutt., *R. purshiana* DC., *R. tomentella* Benth. ssp. *cuspidata* (Greene) J.O. Sawyer, *Rhaphiolepis indica* (L.) Lindl. *Ribes rubrum* L., *Rosa* spp., *Rubus loganobaccus* Bailey, *Salix babylonica* L., *S. laevigata* Bebb, *S. lasiolepis* Benth., *S. matsudana* Koidzumi., *Sorbus aucuparia* L., *Ulmus americana* L., *U. glabra* Huds., *U.*x*hollandica* Mill. and *Wisteria sinensis* (Sims) DC.

merkelii Horn 1886:106 (♂, ♀), plate 6, figs. 183–187 (adult, parts).

Type locality: TX – Type depository: MCZC 33796 (♀) (Lectotype designation: Fisher 1942:206).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Fisher 1942:206 (♂, ♀), figs. 86, 124A (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1407 (♀).

Ecology: Fisher 1942; Vogt 1949b; Cazier 1951b; Westcott, *et al*. 1990 (distr.); Solomon 1995; Nelson, *et al*. 1996 (biol.); MacRae 2006 (biol., distr.).

Distribution: **USA**: AZ, CA, NM, NV, TX; also recorded from Mexico.

Host(s): larvae in *Acacia greggii* Gray, *Albizia julibrissin* Durazz., *Prosopis glandulosa* Torr.; adults also on *Acacia constricta* Benth, *Cercidium floridum* Gray, *Diospyros texana* Scheele, *Ebenopsis ebano* (Berl.) Barneby & Grimes, *Harvardia pallens* (Benth.) Britt. & Rose and *Mimosa dysocarpa* Benth.

mescalero Wellso & Manley 2007:4 (♂, ♀), figs. 1, 13, 25 (elytral sculpture, ♂ genitalia, ♀ pygidium).

Type locality: TX, Pecos Co., 28 mi S. Ft. Stockton, HWY 385 rest stop – Type depository: USNM (♂).

Taxonomy: Wellso & Manley 2007.

Ecology: Wellso & Manley 2007.

Distribution: **USA**: NM, TX

Host(s): adults on *Quercus havardii* Rydb. and *Q. mohriana* Buckl. ex. Rydb.

micromorpha Fall 1907:237.

Type locality: AZ – Type depository: MCZC 24441 (♂).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:124 (♂, ♀), figs. 48, 117F (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1391 (♂).

Ecology: Fisher 1942; Knull 1970 (biol.); Nelson, *et al*. 1981 (biol., distr.).

Distribution: **USA**: AZ, CA, NM; also recorded from Mexico.

Host(s): adults on *Acacia greggii* Gray, *Mimosa* sp., *Olneya tesota* Gray and *Prosopis glandulosa* Torr.

monticola Fall 1910:51, fig. 1g (♂ proleg).

Type locality: CA, San Jacinto Mtns. – Type depository: MCZC 24442 (♂).

synonym: *grandis* Chamberlin 1938:14, figs. 17–19 (parts) – Synonymy: Westcott 1990:332.

Type locality: OR, Grand Co., Fall Mt. Lookout trail, 5200–6000'. Type depository: CASC 5489 (♀).

Taxonomy: Fisher 1942; Westcott 1990.

Redescription: Fisher 1942:158 (♂, ♀), figs. 65, 120E (parts, ♂ genitalia); Westcott 1990, figs. 10, 11 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 1400 (♂).
Ecology: Fisher 1942; Barr 1971 (distr.); Westcott 1990 (biol., distr.).
Distribution: **Canada**: AB, BC; **USA**: CA, CO, ID, MT, OR, WA; also recorded from Mexico.
Host(s): larvae in *Pinus contorta* Loud., *P. jeffreyi* Grev. & Balf., *P. monticola* D. Don and *P. ponderosa* Laws.; adults also on *P. sabiniana* Dougl.

nelsoni Westcott & Alten 2006:208 (♂, ♀), fig. 1–3 (adult, ♂ genitalia).
Type locality: UT, Kane Co., Coral Pink Sand Dunes – Type depository: CASC 18190 (♂).
Ecology: Westcott & Alten 2006 (biol., distr.); Westcott 2007b (distr.).
Distribution: **USA**: CA, NV, UT
Host(s): larvae in *Eriogonum alatum* Torr.

neopusilla Fisher 1942:102 (♂, ♀), fig. 37 (parts).
Type locality: VA, Pennington Gap – Type depository: USNM 55295 (♂).
Taxonomy: Fisher 1942.
Ecology: Fisher 1942; Nelson, *et al*. 1981 (biol., distr.); Nelson 1987a; Wellso & Jackman 2006 (distr.).
Distribution: **Canada**: MB, NB, PC; **USA**: GA, ME, MI, NC, NH, NS, NY, VA, WV
Host(s): larvae in *Abies fraseri* (Pursh) Poir. and *Picea mariana* B.S.P.; adults also on *P.glauca* (Moench) Voss.

neotexana B. K. Dozier 1955:75 (♂, ♀), figs. (♂ genitalia, parts).
Type locality: NC, Charlotte – Type depository: USNM 62301 (♂).
misidentification: *texana* in Franklin & Lund 1956:31, not *texana* LeConte 1860.
Taxonomy: Barr & Westcott 1976.
Ecology: Barr & Westcott 1976 (distr.); Nelson & MacRae 1990 (biol., distr.); Westcott 2005 (distr.).
Distribution: **USA**: AR, GA, MD, MO, NC, TN, TX, VA
Host(s): larvae in *Juniperus virginiana* L.

nixa Horn 1886:98 (♂, ♀), plate 5, figs. 145–149 (adult, parts).
Type locality: W. NV – Type depository: MCZC 8119 (♂) (Lectotype designation: Fisher 1942:157).
Immature stages: Benoit 1966a:329 (larva).
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Fisher 1942:157 (♂, ♀), figs. 64, 120D (parts, ♂ genitalia); Nelson, *et al*. 1996 (variation).
Ecology: Fisher 1942; Barr 1971; Nelson & Westcott 1976; Nelson, *et al*. 1981 (biol., distr.); Westcott 1990; Davies 1991 (distr.); Nelson, *et al*. 1996 (biol.).
Distribution: **Canada**: BC; **USA**: CA, MT, NV, OR, WA, WY
Host(s): larvae in *Calocedrus decurrens* (Torr.) Florin, *Cupressus arizonica* Greene ssp. *nevadensis* (Abrams) Murray, *C. forbesii* Jeps., *C. macrocarpa* Gord., *C. sargentii* Jeps. and *Juniperus chinensis* (L.) 'Kaizuka'; adults also on *Juniperus occidentalis* Hook. and *Thuja plicata* D. Don.

octocola LeConte 1858:67.
Type locality: AZ, Colorado near Gila – Type depository: MCZC 2688 (♀).
synonym: *caviventris* Théry 1926:165 – Synonymy: Obenberger 1934:644.
Type locality: "Siberie"? – Type depository: unknown.
misspelling: *octopunctata* (*lapsus calami*).
Immature stages: Bøving & Craighead 1931: plate 80, figs. F, I (larva); Benoit 1966a:329, fig. 3 (larva).
Taxonomy: Horn 1886; Fisher 1942; Nelson 1975a.
Redescription: Horn 1886:73 (♂, ♀), plate 2, figs. 6–10 (adult parts); Fisher 1942:81 (♂, ♀), figs. 27, 114D (parts, ♂ genitalia); Nelson 1975a: figs. 7, 13, 24 (last abd. ventrite, pygidium ♀, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1375 (♂, ♀).
Ecology: Fisher 1942; Vogt 1949b; Cazier 1951b (distr.); Nelson 1975a; Westcott 1990; Woods 1992; MacRae & Nelson 2003 (biol.); Davidson & Davidson 2005; MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, CA, CO, NM, NV, TX; also recorded from Hawai'i (introduced) and Mexico
Host(s): larvae in *Acacia constricta* Benth., *A. rigidula* Benth., *Cercidium floridum* Benth., *Prosopis glandulosa* Torr., *Prunus persica* (L.) Batsch. and *Salix* sp.; adults also on *Acacia farnesiana* (L.) Willd., *A. greggii* Gray, *A. greggii* var. *wrightii* (Benth.) Isely, *A. tortuosa* (L.) Willd., *Atriplex lentiformis* (Torr.) S. Wats., *Celtis laevigata* Willd., *Parkinsonia aculeata* L. and *Pluchea sericea* (Nutt.) Cov.

oregona Chamberlin 1934:38 (♂, ♀), fig. 9 (♂ protibia).
Type locality: OR, Lake Co., Bull Prairie, 7000' – Type depository: CASC 5498 (♂).
synonym: *planomarginata* Chamberlin 1938a:10 (♂, ♀), figs. 1–4 (parts) – Synonymy: Fisher 1942:53.
Type locality: OR, Lake Co., Bull Prairie, 7000' – Type depository: CASC 5492 (♂).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:53 (♂, ♀), figs. 13, 112F (parts, ♂ genitalia).
Ecology: Fisher 1942; Barr 1971 (biol., distr.); Nelson, *et al*. 1981 (distr.).
Distribution: **Canada**: BC; **USA**: CA, ID, OR, WA
Host(s): larvae in *Geranium* sp.; adults also on *Eriogonum* sp., *Potentilla gracilis* Dougl. ex Hook var. *flabelliformis* (Lehm.) Nutt. ex T. & G.

orono Frost 1920:232.
Type locality: ME, Orono – Type depository: MCZC 35038 (♂).
Taxonomy: Fisher 1942; Westcott 1990.
Redescription: Fisher 1942:173 (♂, ♀), figs. 71, 121E (parts, ♂ genitalia); Wilson 1969: fig. 4A (adult); Westcott 1990:335, fig. 5 (adult).
Ecology: Fisher 1942; Wilson 1969; Bright 1987 (distr.); Westcott 1990 (biol., distr.).
Distribution: **Canada**: MB, ON; **USA**: GA, ME, MI, NC, SC, TN, VA
Host(s): larvae in *Pinus banksiana* Lamb. and *P. resinosa* Soland.

paragrindeliae Knull 1943a:42, figs. 1–5 (parts, ♂ genitalia).
Type locality: CA, Oak Grove – Type depository: FMNH (♂).
Taxonomy: Knull 1943a.
Distribution: **USA**: CA
Host(s): unknown.

parapiuta Knull 1938c:138 (♂, ♀), plate 1, fig. 5 (♂ genitalia).
Type locality: AZ, Wickenburg – Type depository: FMNH (♂).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:126 (♂, ♀), figs. 50, 118B (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1393 (♂, ♀).
Ecology: Fisher 1942 (distr.); Nelson 1959; 1960b; 1962 (biol.).
Distribution: **USA**: AZ, CA
Host(s): adults on *Acacia greggii* Gray, *Ceanothus greggii* Gray var. *perplexans* (Trel.) Jeps. and *Ziziphus parryi* Torr.

peninsularis peninsularis Schaeffer 1904:207.
Type locality: Mexico, BCN, San Felipe – Type depository: USNM 42638 (♂).
Taxonomy: Fisher 1942; Westcott 1990.
Redescription: Van Dyke 1942: fig. 2 (adult); Fisher 1942:89 (♂, ♀), figs. 30, 115A (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1377 (♀).
Ecology: Fisher 1942; Barr & Westcott 1976 (biol., distr.); Walters & Bellamy 1982 (biol.); Westcott 1990 (distr.).
Distribution: **USA**: AZ, CA, NV, TX; also recorded from Mexico: BCN.
Host(s): adults on *Acacia greggii* Gray, *Dalea californica* Wats., *Hymenoclea salsola* Gray, *Krameria grayi* Rose & Painter, *Prosopis glandulosa* Torr. and *Psorothamnus arborescens* (Gray) Barneby var.*simplicifolius* (Parish) Barneby.

piuta Wickham 1903:67 (♂, ♀).
Type locality: CA, Owen's Valley, near Independence – Type depository: USNM 51938 (♂).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:110 (♂, ♀), figs. 41, 116E (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1385 (♂, ♀).
Ecology: Fisher 1942; Nelson 1960b; Barr & Westcott 1976 (biol., distr.); Westcott 1990 (distr.); MacRae & Nelson 2003 (biol.).
Distribution: **USA**: AZ, CA, MT, NV, UT
Host(s): adults on *Ceanothus oliganthus* Nutt., *Cercocarpus betuloides* T. & G., *C. ledifolius* Nutt., *Penstemon* sp., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh and *P. tridentata* (Pursh) DC. var. *glandulosa* (Curran) E. Jones.

planata Gory & Laporte 1837 [syn. of *dentipes*]

planomarginata Chamberlin 1938 [syn. of *oregona*]

posticalis Gory & Laporte 1837 [syn. of *dentipes*]
potentillae Barr 1969b:123 (♂, ♀), figs. 3, 10 (♂ genitalia, protibia).
Type locality: OR, Corvallis – Type depository: CASC 10210 (♂).
Taxonomy: Barr 1969b.
Ecology: Barr 1969b (biol., distr.).
Distribution: **USA**: OR
Host(s): adults on *Potentilla* sp.
prasina Horn 1886:118 (♀), plate 7, figs. 244–247 (adult, parts).
Type locality: CA – Type depository: MCZC 33798 (♀).
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Fisher 1942:248 (♀), fig. 109 (parts); Nelson 1967a:26 (♂); figs. 9 – 12 (♂ genitalia, parts); Akiyama & Ohmomo 2000: fig. 1418 (♂, ♀).
Ecology: Nelson 1967a; Barr & Westcott 1976 (biol., distr.).
Distribution: **USA**: AZ, CA, NV, UT
Host(s): adults on *Ephedra californica* S. Wats., *E. viridis* Cov. and *Psorothamnus spinosus* (Gray) Barneby.
prosopidis Fisher 1942 [syn. of *rossi*]
proxima Kirby 1837 [syn. of *scabripennis*]
pseudacutipennis Obenberger 1940:94, figs. 1, 2 (adult, scutellum).
Type locality: TX – Type depository: NMPC 22929 (♀).
misidentification: *acuminata* of authors (in part), not *acuminata* Leconte 1860.
misidentification: *acutipennis* of authors (in part), not *acutipennis* Chevrolat 1835.
misspelling: *pseudoacutipennis* (*lapsus calami*).
Taxonomy: Obenberger 1940; Westcott 1990.
Redescription: Fisher 1942:201, figs. 84, 123E (as *acuminata*); Westcott 1990, fig. 2 (adult); Akiyama & Ohmomo 2000: fig. 1406 (♂).
Ecology: Westcott 1990 (biol., distr.).
Distribution: **USA**: TX; also recorded from Mexico.
Host(s): adults on *Prosopis glandulosa* Torr.
pseudotsugae Van Dyke 1916:407, fig. 1 (♂ protibia).
Type locality: CA, Trinity Co., Carrville – Type depository: CASC 3349 (♂).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:191 (♂, ♀), figs. 80, 123A (parts, ♂ genitalia).
Ecology: Fisher 1942 (biol., distr.); Barr 1971 (distr.).
Distribution: **Canada**: BC; **USA**: CA, NV, OR, WA
Host(s): larvae in *Pseudotsuga menziesii* (Mirb.) Franco; adults also on *Abies concolor* (Gord. & Glend.) Lindl., *A. grandis* Lindl., *Pinus jeffreyi* Grev. & Balf., *P. ponderosa* Laws. and *Tsuga mertensiana* Sarg.
pubescens Fall 1907 [syn. of *purpurifrons*]
pubilineata Vogt 1949a:48 (♂, ♀), figs. 1–6 (parts, ♂ genitalia).
Type locality: TX, Starr Co., 6.5 mi SE Rio Grande City, Hwy. to Mission – Type depository: USNM 58386 (♂).
Taxonomy: Vogt 1949a.
Ecology: Vogt 1949b; Nelson, *et al*. 1981 (biol., distr.).
Distribution: **USA**: NM, TX
Host(s): adults on *Acacia rigidula* Benth. and *Mimosa* sp.
purpurata Bland 1864:66.
Type locality: NE – Type depository: ANSP? (♀) (Lectotype designation: Fisher 1942:64).
misidentification: *aeneola* of authors (in part), not *aeneola* LeConte 1860.
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:63 (♂, ♀), fig. 18 (parts).
Ecology: Fisher 1942 (distr.).
Distribution: **USA**: NE
Host(s): unknown.
purpureoplagiata Schaeffer 1904:206.
Type locality: AZ, Florence – Type depository: USNM 42636 (♂) (Lectotype designation: Fisher 1942:116).

Taxonomy: Fisher 1942.
Redescription: Van Dyke 1942: fig. 3 (adult); Fisher 1942:116 (♂, ♀), figs. 44, 117B (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1420 (♂, ♀).
Ecology: Fisher 1942; MacRae 2006 (biol., distr.); Nelson, *et al.* 1981 (biol.).
Distribution: **USA**: AZ, CA; also recorded from Mexico.
Host(s): larvae in *Canotia holocantha* Torr., "greasewood" and *Psorothamnus spinosus* (Gray) Barneby; adults also on *Acacia greggii* Gray and *Larrea tridentata* (DC.) Cov.

purpureovittata purpureovittata Horn 1886:76 (♂, ♀), plate 2, figs. 25–29 (adult, parts).
Type locality: TX – Type depository: MCZC 8111 (♂) (Lectotype designation: Fisher 1942:118).
Taxonomy: Fisher 1942; Westcott & Nelson 2000.
Redescription: Fisher 1942:117 (♂, ♀), figs. 45, 117C (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1389 (♂, ♀).
Ecology: Fisher 1942; Vogt 1949b; Cazier 1951b (as *purpureoplagiata*); Westcott & Nelson 2000 (distr.); MacRae & Nelson 2003 (biol.); MacRae 2006; Wellso & Jackman 2006 (biol., distr.).
Distribution: **USA**: AR, IL, IN, KS, LA, MO, MS, OK, TN, TX
Host(s): larvae in *Acacia greggii* Gray, *Carya illinoinensis* (Wangenh.) K. Koch, *Celtis ehrenbergiana* (Klot.) Liebm., *C. laevigata* Willd., *C. l.* var. *reticulata* (Torr.) L. Benson, *C. tenuifolia* Nutt., *Cercis canadensis* L., *Ebenopsis ebano* (Berl.) Barneby & Grimes, *Gleditsia triacanthos* L., *Karwinskia humboltiana* (J.A. Schultes) Zucc., *Koelreuteria paniculata* Laxmann, *Parkinsonia aculeata* L., *Prunus* sp., *Quercus pungens* Liebm. var. *vaseyana* (Buckl.) C.H. Muller., *Rhus virens* Lindenheimer ex Gray var. *choriophylla* (Woot. & Standl.) L. Benson, *Ulmus* sp. and *Ziziphus obtusifolia* (T. & G.) Gray; adults also on *Acacia constricta* Benth., *A. farnesiana* (L.) Willd., *Celtis occidentalis* L., *Cercocarpus montanus* Raf., *Crataegus phaenopyrum* (L. f.) Medik., *Diospyros texana* Scheele, *D. virginiana* L., *Juniperus deppeana* Steud., *Prosopis glandulosa* Torr., *Prunus americana* Marsh. and *Quercus* sp.

purpureovittata cercocarpi Westcott & Nelson 2000:310 (♂, ♀), fig. 10 (♂ genitalia).
Type locality: NM, Otero Co., Cloudcroft – Type depository: CASC 17819 (♂).
Taxonomy: Westcott & Nelson 2000.
Ecology: Westcott & Nelson 2000 (biol., distr.).
Distribution: **USA**: NM
Host(s): adults on *Cercocarpus montanus* Raf.

purpurifrons Motschulsky 1859:183.
Type locality: CA, San Francisco – Type depository: ZMUM (♀).
synonym: *pubescens* Fall 1907:238 – Synonymy: Nelson 1980a:89.
Type locality: CA, Southern Sierras, 3000–6000' – Type depository: MCZC (♂).
misspelling: *subpubescens* (error for *pubescens*, *nomen nudum*).
Taxonomy: Fisher 1942 (as *pubescens*); Nelson 1980a.
Redescription: Fisher 1942:51 (♂, ♀), figs. 12, 112E (parts & ♂ genitalia as *pubescens*).
Ecology: Fisher 1942 (distr. & biol. as *pubescens*); Nelson, *et al.* 1996 (biol.); MacRae 2006 (distr., biol.).
Distribution: **USA**: CA
Host(s): larvae in *Delphinium* sp.; adults also on *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.); and flowers of *Eriogonum kennedyi* Gray.

pusilla Gory & Laporte 1837:53, plate 10, fig. 72 (adult).
Type locality: "Amer. Bor." – Type depository: MNHN (Lectotype not designated).
unavailable name: *biguttata* in Gory & Laporte 1837: plate 10, fig. 72 (*lapsus calami*).
synonym: *strangulata* Melsheimer 1845:147 – Synonymy: LeConte 1860:236.
Type locality: PA – Type depository: MCZC? (♂).
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Horn 1886:97 (♂, ♀), plate 5, figs. 140–144 (adult, parts); Fisher 1942:104 (♂, ♀), figs. 38, 116B (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1383 (♀).
Ecology: Fisher 1942; Barr & Westcott 1976; Nelson, *et al.* 1981; Bright 1987 (biol., distr.); Nelson 1987a; Davies 1991; Dearborn & Donahue 1993; Peck & Thomas 1998 (distr.); Westcott 2005 (distr.).
Distribution: **Canada**: NB, ON, PQ; **USA**: AL, DC, FL, GA, LA, MA, MD, ME, MI, MN, MS, NC, NH, NJ, NY, PA, TN, VA, WI, WV
Host(s): larvae in *Pinus rigida* Mill. and *Tsuga canadensis* (L.) Carr.; adults also on *Pinus banksiana* Lamb., *P. echinata* Mill. and *P. strobus* L.

quadriimpressa Gory & Laporte 1837:48, plate 9, fig. 64 (adult).
Type locality: "Amer. Bor." – Type depository: MNHN (♂).
synonym: *misella* LeConte 1860:233 – Synonymy: Horn 1886:79.
Type locality: Saratoga – Type depository: MCZC (♂).
Taxonomy: Kerremans 1903:187 (syn. of *femorata*); Wellso & Manley 2007.
Redescription: Wellso & Manley 2007:9 (♂, ♀), figs. 7, 19, 31 (elytral sculpture, ♂ genitalia, ♀ pygidium).
Ecology: Wellso & Manley 2007 (biol., distr.).
Distribution: **USA**: AL, AZ, CT, DE, FL, ID, IL, IN, IO, MA, MD, ME, MI, NC, NJ, NY, OH, OR, PA, RI, TN, TX, VA, WI
Host(s): larvae in from *Juglans nigra* L.; *Liquidamber styraciflua* L., *Quercus alba* L., *Q. coccinea* Muenchh., *Q. emoryi* Torr., *Quercus rubra* L., and *Sapindus saponaria* var. *drummondii* Hook. & Arn.

quadrilineata LeConte 1860:233.
Type locality: NM, Santa Fe – Type depository: MCZC 2700 (♂).
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Horn 1886:94 (♂, ♀), plate 4, figs. 120–124 (adult, parts); Fisher 1942:153 (♂, ♀), figs. 62, 120C (parts, ♂ genitalia).
Ecology: Fisher 1942; Barr & Westcott 1976 (biol., distr.); Nelson, *et al.* 1981; Nelson 1987a (distr.).
Distribution: **USA**: AZ, CA, CO, NM, NV, OR, SD, TX, UT
Host(s): adults on *Juniperus californica* Carr. and *J. deppeana* Steud.

roguensis Beer 1967:18 (♂, ♀), figs. 1–6 (♂ genitalia, parts).
Type locality: OR, Josephine Co., Finley Bend, 10 mi W Grants Pass – Type depository: CASC 9826 (♂).
Taxonomy: Beer 1967.
Redescription: Barr 1971: plate 7, fig. 8 (adult).
Ecology: Barr 1971 (biol., distr.).
Distribution: **USA**: OR
Host(s): larvae in *Eriogonum compositum* Benth.

rossi Van Dyke 1942:117 (♂, ♀), plate 7, fig. 4 (adult ♂).
Type locality: Mexico. Baja CA, 15 mi N San Ignacio – Type depository: CASC 4836 (♂).
misidentification: *debilis* of authors (in part), not *debilis* LeConte 1860.
synonym: *prosopidis* Fisher 1942:70 (♂, ♀) – Synonymy: Nelson 1968a:28.
Type locality: AZ, Sabino Cyn. – Type depository: USNM 55293 (♂).
Taxonomy: Fisher 1942 (as *prosopidis*); Nelson 1968a.
Redescription: Fisher 1942:70 (♂, ♀), figs. 22, 113F (parts & ♂ genitalia as *prosopidis*).
Ecology: Fisher 1942 (distr. & biol. as *prosopidis*); Vogt 1949b (as *prosopidis*); Cazier 1951b (as *prosopidis*); Barr & Westcott 1976; Nelson & Westcott 1976 (distr.); MacRae & Nelson 2003; Davidson & Davidson 2005; MacRae 2006 (biol., distr.); Wellso & Jackman 2006 (biol.).
Distribution: **USA**: AZ, CA, NM, TX; also recorded from Mexico.
Host(s): larvae in *Acacia constricta* Benth., *A. farnesiana* (L.) Willd., *A. greggii* Gray, *A. rigidula* Benth., *Celtis laevigata* Willd. var. *reticulata* (Torr.) L. Benson, *Juniperus californica* Carr. and *Prosopis glandulosa* Torr.; adults also on *Cercidium floridum* Gray.

rotundicollis Gory & Laporte 1837, 51, plate 9, fig. 69 (adult).
Type locality: "Saint–Domingue" – Type depository: MNHN (♀) (Lectotype designation: Barr & Westcott 1976:150).
synonym: *blanchardi* Horn 1886:93 (♂, ♀), plate 4, figs. 115–119 (adult, parts) – Synonymy: Westcott 1990:338.
Type locality: MA, Tyngsboro – Type depository: MCZC 8117 (♂).
synonym: *columbiana* Barr 1969:131, figs. 7, 14 (♂ genitalia, protibia) – Synonymy: Westcott 1990:338.
Type locality: BC, Midday Valley, Merritt – Type depository: CASC 10216 (♂).
Taxonomy: Horn 1886; Fisher 1942 (as *blanchardi*); Barr 1969b (as *columbiana*); Barr & Westcott 1976; Westcott 1990.
Redescription: Fisher 1942:164 (♂, ♀), figs. 67, 121A (parts & ♂ genitalia as *blanchardi*).
Ecology: Fisher 1942; Howden & Vogt 1951 (biol.); Nelson & Westcott 1976; Nelson, *et al.* 1981

(both as *blanchardi*); Westcott 1990; MacRae & Nelson 2003 (biol., distr.); Westcott 2005 (distr.); Wellso & Jackman 2006 (distr.).

Distribution: **Canada**: AB, BC, MB, NB, ON, PQ, SK; **USA**: AZ, DC, FL, IA, IN, MA, ME, MI, MN, MT, NC, NE, NH, NJ,NM, NY, PA, SD, TX, WA, WY

Host(s): larvae in *Ebenopsis ebano* (Berl.) Barneby & Grimes, *Larix laricina* (Du Roi) K. Koch, *Pinus rigida* Mill., *P. strobus* L. and *P. virginiana* Mill.; adults also on *Pinus contorta* Loud. and *P. ponderosa* Laws.

rugosiceps Melsheimer 1845:147.

Type locality: PA – Type depository: MCZC (♂) (Neotype designation: Wellso & Manley 2007:7).

synonym: *alabamae* Gory 1841:185, plate 32, fig. 183 (adult) – Synonymy: Horn 1886:78.

Type locality: AL – Type depository: MNHN (♂).

misidentification: *femorata* of authors (in part), not *femorata* Oliver 1790.

Taxonomy: Fisher 1942; Wellso & Manley 2007.

Redescription: Fisher 1942:131 (♂, ♀), fig. 118E (♂ genitalia); Wellso & Manley 2007:7 (♂, ♀), figs. 5, 17, 29 (elytral sculpture, ♂ genitalia, ♀ pygidium).

Ecology: Fisher 1942; Nelson, *et al*. 1981; Bright 1987; Nelson 1987a; MacRae 1991 (biol., distr.); Nelson, *et al*. 1996; Westcott 2001b (distr.); Wellso & Manley 2007 (distr.).

Distribution: **Canada**: MB, ON, PQ; **USA**: AL, AR, CT, DC, DE, FL, IA, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, NC, ND, NH, NJ, NY, OK, PA, SC, SD, TN, TX, VA, WI, WV

Host(s): larvae in *Castanea dentata* Borkh., *Quercus alba* L., *Q. macrocarpa* Michx. and *Q. velutina* Lam.; adults also on *Carya ovata* (Mill.) K. Koch, *Pinus echinata* Mill., *Quercus marilandica* Muenchh., *Q. palustris* Muenchh. and *Q.stellata* Wangenh.

scabra Gory 1841 [syn. of *scabripennis*]

scabripennis Gory & Laporte 1837:53, plate 9, fig. 71 (adult).

Type locality: "Amer. Bor." – Type depository: MNHN.

synonym: *proxima* Kirby 1837:157 – Synonymy: Saunders 1871:98.

Type locality: "Amer. Bor." – Type depository: BMNH.

synonym: *scabra* Gory 1841:182, plate 31, fig. 178 (adult) – Synonymy: Saunders 1871:98.

Type locality: "Amer. du Sud" – Type depository: MNHN (type not located in 1978).

Immature stages: Benoit 1964:1114, figs. 5–17, 21, 23, 24 (larva).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Horn 1886:89 (♂, ♀), plate 3, figs. 85–89 (adult, parts); Fisher 1942:176 (♂, ♀), figs. 73, 121F (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1401 (♂, ♀).

Ecology: Fisher 1942; Barr 1971 (biol., distr.); Nelson, *et al*. 1981; Bright 1987; Davies 1991 (distr.); Dearborn & Donahue 1993 (biol.); Nelson, *et al*. 1996.

Distribution: **Canada**: AB, BC, MB, NB,ON, NT, PQ, SK; **USA**: GA, MA, ME, MI, MN, NC, NH, NY, PA, VA (?), VT, WI, WV

Host(s): larvae in *Picea glauca* (Moench) Voss, *Pinus strobus* L. and *Tsuga canadensis* (L.) Carr.

schaefferi Obenberger 1934:649 (replacement name for *thoracicus* Schaeffer 1905).

misidentification: *edwardsii* of authors (in part), not *edwardsii* Horn 1886.

synonym: *thoracicus* Schaeffer 1905a:128 (preoccupied: *thoracicus* Fabricius 1798).

Type locality: Mexico, Baja CA, El Taste – Type depository: USNM 42654 (♀).

Taxonomy: Fisher 1942.

Redescription: Van Dyke 1942: plate 7, fig. 5 (adults as *thoracicus*); Fisher 1942:76 (♂, ♀), figs. 25, 114B (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1371 (♂, ♀).

Ecology: Fisher 1942; Nelson 1965 (biol., distr.).

Distribution: **USA**: CA; also recorded from Mexico.

Host(s): larvae in *Bursera microphylla* Gray; adults also on *Acacia greggii* Gray and *Cercidium floridum* Gray.

schistomorion Westcott & Davidson 2001:83 (♂, ♀), plate 2, A (holotype), B (♂ genitalia), figs. 1 (protibia), 2 (last visible abdominal ventrite).

Type locality: AZ, Prescott – Type depository: MCZC 35063 (♂).

Taxonomy: Westcott & Davidson 2001.

Ecology: Westcott & Davidson 2001 (distr.).

Distribution: **USA**: AZ

Host(s): unknown.

scitula Gory 1841:160, plate 27, fig. 155 (adult).
Type locality: "Amer. Bor." – Type depository: MNHN.
Taxonomy: Fisher 1942.
Ecology: Nelson, *et al*. 1981; Westcott 1990; 2001b (distr.).
Distribution: **USA**: AL, GA, LA, MS, SC, TX
Host(s): unknown.
scotti Chamberlin 1938 [syn. of *ignicollis*]
seminole Wellso & Manley 2007:5 (♂, ♀), figs. 2, 14, 26 (elytral sculpture, ♂ genitalia, ♀ pygidium).
Type locality: GA, Emanuel Co., I-16 & US 1, Gar road – Type depository: USNM (♂).
Taxonomy: Wellso & Manley 2007.
Ecology: Wellso & Manley 2007 (biol., distr.).
Distribution: **USA**: FL, GA
Host(s): reared from *Chrysoma pauciflosculosa* (Michx.) Greene.
semisculpta LeConte 1860:254.
Type locality: CA – Type depository: MCZC 2694 (♀).
synonym: *contigua* LeConte 1860:255 – Synonymy: Fisher 1942:83.
Type locality: CA – Type depository: MCZC 2683 (♂).
synonym: *burkei* Chamberlin 1929:110, figs. 2–3 (Clypeus, ♂ proleg.) – Synonymy: Westcott 1990:339.
Type locality: CA, San Mateo Co., Big Basin – Type depository: CASC 5500 (♂).
Taxonomy: Fisher 1942; Westcott 1990.
Redescription: Fisher 1942:83 (♂, ♀), figs. 28, 114E (parts, ♂ genitalia).
Ecology: Fisher 1942; Barr 1971 (biol., distr.); Nelson, *et al*. 1981; Nelson 1987a; MacRae & Nelson 2003 (biol.).
Distribution: **USA**: CA, ID, NV, OR, WA
Host(s): larvae in *Calocedrus decurrens* (Torr.) Florin, *Pinus attenuata* Lemmon, *P. contorta* Loud., *P. jeffreyi* Grev. & Balf., *P. lambertiana* Dougl., *P. monophylla* Torr. & Frem., *P. ponderosa* Laws., *P. sabiniana* Dougl. and *Pseudotsuga menziesii* (Mirb.) Franco.
serripes Schaeffer 1905a:130.
Type locality: UT, Beaver Cyn. – Type depository: USNM 42655 (♂).
Taxonomy: Fisher 1942; Westcott 1983.
Redescription: Fisher 1942:213 (♂, ♀), figs. 91, 124D (parts, ♂ genitalia); Westcott 1983:347, figs. 3, 25, 26 (adult, parts).
Ecology: Fisher 1942; Westcott 1983 (biol., distr.).
Distribution: **USA**: AZ, CO, NM, UT
Host(s): adults on *Quercus gambelii* Nutt.
sexfasciata Schaeffer 1919:212.
Type locality: FL, Key West – Type depository: USNM 42633 (♀).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:230 (♂, ♀), fig. 125F (♂ genitalia).
Ecology: Fisher 1942 (distr.); Barr & Westcott 1976 (biol.).
Distribution: **USA**: FL; also recorded from the West Indies.
Host(s): larvae in *Conocarpus erectus* L.; adults also on *Laguncularia racemosa* (L.) Gaertn. f.
sexguttata Say 1823 [syn. of *sexsignata*]
sexsignata Say 1839:158 (replacement name for *sexguttata* Say 1823).
synonym: *sexguttata* Say 1823:161 (preoccupied: *sexguttata* Herbst 1801).
Type locality: USA – Type depository: USNM (♀) (Original type destroyed; Neotype, from PA, Frankford, designation: Fisher 1942:226).
synonym: *germari* Gory & Laporte 1837:50, plate 9, fig. 67 (adult) – Synonymy: LeConte 1860:238.
Type locality: "Amer. Bor." – Type depository: MNHN (♂).
synonym: *ignipes* Gory & Laporte 1837:50, plate 9, fig. 68 (adult) – Synonymy: LeConte 1860:238.
Type locality: MA, Boston – Type depository: BMNH.
misspelling: *difficilis* LeConte 1873:332 (probably a typographical error for *dissimilis* Gory).
Immature stages: Benoit 1964:1114 (larva).
Taxonomy: Horn 1886; Fisher 1942; ICZN 2007.
Redescription: Horn 1886:112 (♂, ♀), plate 7, figs. 212–216 (adult, parts); Fisher 1942:225 (♂, ♀), figs.

96, 125D (parts, ♂ genitalia).

Ecology: Fisher 1942; Hespenheide 1974; Nelson, *et al.* 1981; Bright 1987; Nelson 1987a; Davies 1991 (distr.); Nelson & MacRae 1991; MacRae & Nelson 2003; MacRae 2006 (biol., distr.); Wellso & Jackman 2006 (biol.).

Distribution: **Canada**: NB, ON, PE, PQ; **USA**: AR, CO, CT, DC, DE, FL, GA, IA, IL, IN, KS, KY, MA, MD, ME, MI, MO, MS, NC, NE, NJ, NY, OH, OK, PA, RI, SC, TX, VA, WV

Host(s): larvae in *Acacia* sp., *Acer rubrum* L., *A. saccharum* Marsh., *Amelanchier arborea* (Michx. f.) Fern., *Betula alleghaniensis* Britt., *B. nigra* L., *Carya ovata* (Mill.) K. Koch, *Castanea dentata* (Marsh.) Borkh., *Celtis laevigata* Willd., *C. occidentalis* L., *C. tenuifolia* Nutt., *Cercis canadensis* L., *Crataegus viridis* L., *Diospyros virginiana* L., *Fagus* sp., *Fraxinus americana* L., *M. nigra* Marsh., *M. pennsylvanica* Marsh., *M. quadrangulata* Michx., *Gleditsia triacanthos* L., *Juglans cinerea* L., *J. nigra* L., *Larix laricina* (DuRoi) K. Koch, *Picea mariana* (Mill.) B.S.P., *Pinus rigida* Mill., *Prosopis* sp., *Quercus alba* L., *Q. bicolor* Willd., *Q. macrocarpa* Michx., *Q. muehlenbergii* Engelm., *Q. stellata* Wangenh., *Taxodium distichum* (L.) Rich., *Tsuga canadensis* (L.) Carr., *Ulmus alata* Michx., *U. rubra* Muhl. and *Vitus* sp; adults also on *Acer saccharinum* L., *Quercus palustris* Muenchh. and *Sorbus aucuparia* L.

shawnee Wellso & Manley 2007:18 (♂, ♀), figs. 12, 24, 36 (elytral sculpture, ♂ genitalia, ♀ pygidium).

Type locality: TX, Brazos Co., College Station – Type depository: USNM (♂).

Taxonomy: Wellso & Manley 2007.

Ecology: Wellso & Manley 2007 (biol., distr.).

Distribution: **USA**: AL, CO, CT, DC, FL, GA, IL, IN, IO, KS, KY, MA, MD, MI, MO, MS, NH, NJ, NC, NY, OK, PA, RI, SC, TN, TX, VA, WV

Host(s): larva in *Castanea dentata* (Marshall) Borkhausen, *Quercus palustris* Muenchh., *Q. phellos* L., *Q. stellata* Wangenh. and *Quercus* sp.; adults also on *Celtis laevigata* Willd., *Fraxinus pennsylvanica* Marsh., *Quercus alba* L., *Q. bicolor* Willd., *Q. coccinea* Muenchh., *Q. gravesii* Sudw., *Q. marilandica* Muenchh., *Q. michauxi* Nutt., *Q. rubra* L. and *Q. velutina* Lam.

sloicola Manley & Wellso 1976:317 (♂, ♀), fig. 1 (♂ genitalia, parts).

Type locality: MI, Shiawassee Co., (T5N R1E Sec. 35) – Type depository: USNM 73570 (♂).

Taxonomy: Manley & Wellso 1976; Wellso & Manley 2007.

Redescription: Wellso & Manley 2007:6 (♂, ♀), figs. 4, 16, 28 (elytral sculpture, ♂ genitalia, ♀ pygidium).

Ecology: Manley & Wellso 1976 (biol., distr.).\

Distribution: **USA**: MI

Host(s): adults on *Prunus americana* Marsh.

smaragdula Fall 1907:239.

Type locality: AZ, Oak Creek Cyn. – Type depository: MCZC 56658 (♀).

synonym: *verdevallis* Fisher 1943b:202 – Synonymy: Nelson 1987b:71.

Type locality: AZ, Verde Valley. Type depository: USNM (♀).

Taxonomy: Fisher 1942; Nelson 1987b.

Redescription: Fisher 1942:246 (♂, ♀), fig. 108 (parts).

Ecology: Fisher 1942 (distr.); Nelson 1962; 1965 (biol., distr.).

Distribution: **USA**: AZ, CA

Host(s): adults on *Acacia greggii* Gray, *Mimosa* sp., *Quercus gambelii* Nutt. (*Q. utahensis* Rydb.).

socialis apache Westcott & Barr 2007:55 (♂, ♀).

Type locality: Nogales, St. Cruz Co., Ariz. – Type depository: USNM.

Taxonomy: Fisher 1942:237 (as *socialis*); Nelson, *et al.* 1981 (as *socialis*).

Redescription: Fisher 1942:238 (♂, ♀), figs. 103, 126C (parts, ♂ genitalia) (as *socialis*).

Ecology: Fisher 1942; Cazier 1951b (distr.); Nelson, *et al.* 1981 (biol.).

Distribution: **USA**: AZ; also recorded from Mexico.

Host(s): adults on *Anisacanthus thurberi* (Torr.) Gray, Baccharis sp., *Celtis ehrenbergia* (Klot.) Liebm., *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby, *Mimosa* sp., *Prosopis glandulosa* Torr. and *Prosopis* sp.

soror LeConte 1860 [syn. of *adelpha*]

speculifer Horn 1886:83 (♂, ♀), plate 3, figs. 56–60 (adult, parts).

Type locality: CO – Type depository: MCZC 8113 (♂) (Lectotype designation: Fisher 1942:98).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Fisher 1942:97 (♂, ♀), figs. 34, 115E (parts, ♂ genitalia).
Ecology: Fisher 1942 (biol., distr.); Powell 1965 (biol.).
Distribution: **USA**: AZ, CA, CO, NM, TX, UT
Host(s): larvae in *Juniperus californica* Carr. and *J. monosperma* (Engelm.) Sarg.

strangulata Melsheimer 1845 [syn. of *pusilla*]

subcylindrica Ménétries *in* Motschulsky 1859:182, plate 4, fig. 17 (adult).
Type locality: (CA, Sacramento) "Nova–Helvetia" – Type depository: ZMUM (♀).
synonym: *deleta* LeConte 1860:255 – Synonymy: Nelson 1980a:90.
Type locality: CA – Type depository: MCZC 2703 (♀).
misspelling: *delecta* (error for *deleta*, *lapsus calami*).
Taxonomy: Horn 1886; Fisher 1942 (both as *deleta*); Barr & Westcott 1976 (*subcylindrica*) name resurrected but not associated); Nelson 1980a.
Redescription: Horn 1886:99 (♂, ♀), plate 5, figs. 150–154 (adult, parts); Fisher 1942:38 (♂, ♀), figs. 5, 111E (parts, ♂ genitalia) (both as *deleta*); Westcott 1990 (biol., distr.).
Ecology: Fisher 1942; Barr 1971 (both as *deleta*); Walters 1975; Barr & Westcott 1976 (biol. as *deleta*).
Distribution: **USA**: AZ, CA, ID, NM, NV, OR, UT
Host(s): larvae in *Artemesia tridentata* Nutt., *Chrysothamnus nauseosus* (Pall.) Britt., *Gutierrezia sarothrae* (Pursh) Britt. & Rusby and *Heterotheca villosa* (Pursh) Shinners; adults also on *Prosopis glandulosa* Torr., *Psorothamnus emoryi* (Gray) Rydb., *Purshia tridentata* (Pursh) DC. var. *glandulosa* (Curran) ♂E. Jones and *Senna armata* (S. Wats.) Irwin & Barneby.

subopaca Schaeffer 1904:208 (misspelled *subapaca* in description).
Type locality: CA, Tulare Co. – Type depository: CASC 8120 (♂).
Distribution: **USA**: CA
Host(s): unknown.

sylvania Fall 1910:50, fig. 1d (♂ protibia).
Type locality: CA, Sylvania – Type depository: MCZC 24445 (♂).
Immature stages: Chamberlin 1920a (life cycle), plate 7, figs. 1, 2 (pupa, larva).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:187 (♂, ♀), figs. 78, 122E (parts, ♂ genitalia).
Ecology: Fisher 1942 (biol., distr.).
Distribution: **Canada**: BC; **USA**: CA, OR, WA
Host(s): larvae in *Pseudotsuga menziesii* (Mirb.) Franco.

texana LeConte 1860:234.
Type locality: TX – Type depository: MCZC 2702 (♂).
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Horn 1886:96 (♂, ♀), plate 5, figs. 130–134 (adult, parts); Fisher 1942:90 (♂, ♀), figs. 31, 115B (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1378 (♂, ♀).
Ecology: Fisher 1942; Barr 1971; Barr & Westcott 1976; Westcott 1990; 2001b (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, CA, CO, ID, ND, NE, NM, NV, OK, TX, UT; also recorded from Mexico.
Host(s): larvae in *Cupressus arizonica* Greene, *Juniperus deppeana* Steud., *J. occidentalis* L., *J. osteosperma* (Torr.) Little, *J. scopulorum* Sarg. and *J. virginiana* L.

thoracicus Schaeffer 1905 [syn. of *schaefferi*]

tranquebarica (Gmelin) 1788:1932 (*Buprestis*, replacement name for *impressa* Fabricius 1787, not 1775).
Type locality: "Tranquebariae" – Type depository: unknown.
synonym: *impressa* (Fabricius) 1787:182 (*Buprestis*, preoccupied: *impressa* Fabricius 1775).
unavailable name: *excavata* Olivier 1790:232 (unjustified new name).
misidentification: *chalcophoroides* of Smith 1887:39, not *chalcophoroides* Horn 1886:110.
synonym: *denticulata* Gory & Laporte 1837:46, plate 8, fig. 62 (adult) – Synonymy: Fisher 1942:201.
Type locality: "Guadeloupe" – Type depository: MNHN (♂).
synonym: *fraterna* Mannerheim 1837:75 – Synonymy: Fisher 1942:201.
Type locality: "Insula Porto Rico" – Type depository: UZMH (♀) (Lectotype designation: Nelson 1976:168).
synonym: *denticollis* Gory 1841:178, plate 30, fig. 173 (adult) – Synonymy: Fisher 1942:201.
Type locality: Colombia: Bogota – Type depository: MHNG.

Immature stages: Snyder 1919:158 (egg, larva, pupa), plate 20 (larva, pupa); Benoit 1966a:330, fig. 4 (clypeus of larva).
Taxonomy: Horn 1886 (as *impressa*); Fisher 1942.
Redescription: Snyder 1919: plate 21 (adult ♂); Fisher 1942:199 (♂, ♀), figs. 83, 123D (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1405 (♂).
Ecology: Fisher 1942 (biol., distr.).
Distribution: **USA**: FL; also recorded from the West Indies.
Host(s): larvae in *Casuarina equisetifolia* Foster, *Pinus palustris* Mill. and *Rhizophora mangle* L.; adults also on *Cassia fistula* L. and *Laguncularia racemosa* (L.) Gaertn. f.

trinervia Kirby 1837:157, plate 2, fig. 9 (adult).
Type locality: Lat.54° and 65° and in Rocky Mtns. – Type depository: BMNH.
synonym: *cicatricosa* Motschulsky 1852:77 – Synonymy: LeConte 1860:235.
Type locality: AK, Kodiak – Type depository: ZMUM.
Immature stages: Burke 1917a: plate 4, fig. 4 (larva); Benoit 1964:1114, fig. 20 (larva).
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Fisher 1942:178 (♂, ♀), figs. 74, 122A (parts, ♂ genitalia); Barr 1971: plate 7, fig. 9 (adult); Akiyama & Ohmomo 2000: fig. 1402 (♂)
Ecology: Fisher 1942; Bright 1987; Westcott 1990; Davies 1991 (distr.); MacRae 2006 (biol., distr.).
Distribution: **Canada**: AB, BC, MB, NB, NF, NS, NT, ON, PE, PQ, SK, YT; **USA**: AK, AZ, CA, CO, ID, ME, MI, MN, MT, NH, NM, OR, SD, UT, VT, WA, WY
Host(s): larvae in *Larix laricina* (DuRoi) K. Koch, *Picea* sp., *Pinus flexilis* James, *P. ponderosa* Laws. and *Pseudotsuga menziesii* (Mirb.) Franco; adults also on *Abies* sp., *Pinus banksiana* Lamb., *P. edulis* Engelm. and *P. strobus* L.

ultramarina Gory & Laporte 1837 [syn. of *azurea*]

verdevallis Fisher 1943 [syn. of *smaragdula*]

verdigripennis Frost 1910:43.
Type locality: ME, Wales – Type depository: MCZC 2696 (♂).
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:142 (♂, ♀), figs. 57, 119D (parts, ♂ genitalia).
Ecology: Fisher 1942; Bright 1987 (biol., distr.); Davies 1991 (distr.).
Distribution: **Canada**: AB, MB, NB, NS, NT, ON, PQ,SK ;**USA**: CT, MA, ME, MI, NY, PA, VT
Host(s): larvae in *Picea abies* (L.) Karst. and *Tsuga canadensis* (L.) Carr.; adults also on *Abies balsamea* (L.) Mill., *Fagus grandifolia* Ehrh., *Picea glauca* (Moench) Voss and *Pinus* sp.

viridiceps Melsheimer 1845:147.
Type locality: PA – Type depository: MCZC (♂) (Neotype designation: Wellso & Manley 2007:8).
synonym: *lesueuri* Gory & Laporte 1837:49, plate 9, fig. 66 (adult) – Synonymy: Horn 1886:79.
Type locality: "Amer. Sept." – Type depository: MNHN (♂).
misidentification: *femorata* of authors (in part), not *femorata* Oliver 1790.
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:132 (♂, ♀), fig. 118F (♂ genitalia); Wellso & Manley 2007:8 (♂, ♀), figs. 6, 18, 30 (elytral sculpture, ♂ genitalia, ♀ pygidium).
Ecology: Fisher 1942; Vogt 1949b; Nelson & Westcott 1976; Nelson, *et al.* 1981; Bright 1987; MacRae 1991 (biol., distr.); Davies 1991; Nelson, *et al.* 1996; Peck & Thomas 1998 (distr.); Westcott 2001b (biol.); Wellso & Manley 2007 (biol., distr.).
Distribution: **USA**: AR, FL, GA, IA, IN, KY, IL, IN, KY, MA, MD, MI, MN, MO, MS, NC, NE, NJ, NM, NY, OH, OK, PA, RI, SD, TN, TX, VA, VT, WI, WV
Host(s): larvae in *Acer rubrum* L., *Carya illinoinensis* (Wang.) K. Koch., *Pinus* sp., *Prosopis* sp., *Quercus alba* L., *Q. grisea* Liebm., *Q. macrocarpa* Michx., *Q. stellata* Wangenh., *Quercus* sp. and *Ulmus crassifolia* Nutt.; adults also on *Acer saccharinum* L., *Carya ovata* (Mill.) K. Koch, *Q. bicolor* Willd., *Q. marilandica* Muenchh., *Q. velutina* Lam. and *Ulmus americana* L.

viridicyanea Horn 1886:84 (♂, ♀), plate 3, figs. 61–65 (adult, parts).
Type locality: NV – Type depository: MCZC 8114 (♂) (Lectotype designation: Fisher 1942:102).
Taxonomy: Horn 1886; Fisher 1942.
Redescription: Fisher 1942:101 (♂, ♀), figs. 36, 116A (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1380 (♂, ♀).

Ecology: Fisher 1942; Barr 1971 (biol., distr.).
Distribution: **USA**: CA, NV, OR
Host(s): larvae in *Calocedrus decurrens* (Torr.) Florin., *Chamaecyparis lawsoniana* (A. Murr.) Parl., *Juniperus occidentalis* Hook. and *J. scopulorum* Sarg.; adults also on *Pinus jeffreyi* Grev. & Balf. and *Pseudotsuga menziesii* (Mirb.) Franco.

viridipunctata Gory & Laporte 1837 [syn. of *chrysoela*]

vivida Knull 1952b:352, figs. 3, 4 (parts).
Type locality: KS, Scott Co. – Type depository: FMNH (♀).
Distribution: **USA**: KS
Host(s): unknown.

vogti Knull 1964 [ssp. of *ephedrae*]

vulcanica LeConte 1861:346.
Type locality: OR, E. of Fort Colville – Type depository: MCZC 2699 (♀).
misidentification: *californica* of authors (in part), not *californica* LeConte 1860.
synonym: *canadensis* Chamberlin 1934:37 (♂, ♀), fig. 12 (♂ protibia) – Synonymy: Barr 1971:80.
Type locality: **Canada**: AB, Banff – Type depository: CASC 5490 (♂).
Taxonomy: Fisher 1942; Barr 1971.
Redescription: Fisher 1942:170 (♀), 165 (♂ as *canadensis*), figs. 68, 121B (parts & ♂ genitalia as *canadensis*).
Ecology: Fisher 1942 (distr. as *canadensis*); Barr 1971; Westcott 1990 (biol., distr.).
Distribution: **Canada**: AB, BC; **USA**: CA, ID, MT, OR, WA, WY
Host(s): adults on *Pseudotsuga menziesii* (Mirb.) Franco.

westcotti Barr 1969b:120 (♂, ♀), figs. 2, 9 (♂ genitalia, protibia).
Type locality: OR, Baker Co., 11.5 mi NW Lime – Type depository: CASC 10212 (♂).
Taxonomy: Barr 1969b.
Ecology: Barr 1969b (biol.).
Distribution: **USA**: OR
Host(s): larvae in *Eriogonum compositum* Benth.

wickhami Fisher 1942:209, fig. 88 (parts, ♀).
Type locality: AZ, Yuma – Type depository: USNM 55297 (♀).
Taxonomy: Fisher 1942.
Redescription: Nelson 1967a:24 (♂), figs. 5–8 (parts, ♂ genitalia).
Ecology: Fisher 1942 (distr.); Nelson 1960b (biol.).
Distribution: **USA**: AZ, CA
Host(s): adults on *Prosopis glandulosa* Torr.and *P. pubescens* Benth.

wintu Wellso & Manley 2007:12 (♂, ♀), figs. 9, 21, 33 (elytral sculpture, ♂ genitalia, ♀ pygidium).
Type locality: CA, Shasta Co., 4 mi W Redding – Type depository: WFBC (♂).
Taxonomy: Wellso & Manley 2007.
Ecology: Wellso & Manley 2007.
Distribution: **USA**: AZ, CA, OR, WA; also recorded from Mexico: BCN.
Host(s): larvae in *Platanus racemosa* Nutt., *Prunus domestica* L., *Quercus berberidifolia* Liebm. misapplied to *Q. dumosa* Nutt.), *Q. douglasii* Hook. & Arn., *Q. kelloggii* Newb., *Q. wislizenii* A. DC, *Quercus* spp., *Salix lasiolepis* Benth. and *S. nigra* Marsh; adults also on *Betula* spp., *Quercus agrifolia* Neé, *Q, chrysolepis* Liebm., *Q. gravesii* Sudw., *Q. garryana* Douglas, *Arctostaphylos viscida* Parry, *Pyrus communis* L. and *Salix scouleriana* Barratt ex Hook.

woodgatei Champlain & Knull 1922:144 (♂, ♀).
Type locality: NM, Jemez Sprs. – Type depository: FMNH (♂).
misidentification: *quadrilineata* Tanner 1928:274, not *quadrilineata* LeConte 1860.
Taxonomy: Fisher 1942.
Redescription: Fisher 1942:171 (♂, ♀), figs. 70, 121D (parts, ♂ genitalia); Westcott 1990: fig. 9 (adult).
Ecology: Fisher 1942; Barr & Westcott 1976; Westcott 1990 (biol., distr.); Nelson, *et al*. 1996 (distr.).
Distribution: **USA**: AZ, CO, NM, UT, WY
Host(s): adults on *Pinus ponderosa* Laws.

Genus *Knowltonia* Fisher 1935

Knowltonia Fisher 1935c:117.

Type species: *Knowltonia biramosa* Fisher 1935 (fixed by original designation).

Taxonomy: Fisher 1942:17 (synonym of *Chrysobothris*); Westcott & Barr 2007:49 (resurrected).

Ecology: Westcott & Barr 2007:51.

Key(s): Westcott & Barr 2007:51.

alleni (Cazier) 1938a:15 (*Chrysobothris*) (♂, ♀).

Type locality: AZ, 20 mi E Tuba City – Type depository: AMNH (♀).

misidentification: *biramosa* of authors, not *biramosa* Fisher, 1935.

Taxonomy: Fisher 1942; Westcott & Barr 2007.

Redescription: Fisher 1942:243 (♂, ♀), figs. 106, 126E (parts, ♂ genitalia).

Ecology: Fisher 1942 (biol., distr.); Westcott & Barr 2007.

Distribution: **USA**: AZ, CO

Host(s): larvae in *Atriplex* sp.; adults on *Atriplex canescens* (Pursh) Nutt.

atrifasciata (LeConte) 1873:332 (*Chrysobothris*, replacement name for *nigrofasciata* LeConte 1860).

misidentification: *nigrofasciata* LeConte 1860:240, not *nigrofasciata* Gory & Laporte 1837).

Type locality: NM – Type depository: MCZC 2709 (♀).

Taxonomy: Horn 1886; Fisher 1942; Westcott & Barr 2007.

Redescription: Horn 1886:116, figs. 237–242 (adult & parts); Fisher 1942:236 (♂, ♀), figs. 102, 126B (parts, ♂ genitalia).

Ecology: Fisher 1942 (biol., distr.); Knull 1970 (biol.); Nelson, *et al*. 1981 (distr.); Westcott & Barr 2007.

Distribution: **USA**: CO, NM, TX, UT

Host(s): larvae in *Atriplex* sp.; adults also on *Atriplex canescens* (Pursh) Nutt., *Chrysothamnus nauseosus* (Pall.) Britt.

biramosa Fisher 1935c:117.

Type locality: UT, Skull Valley – Type depository: USNM 50965 (♂).

misidentification: *atrifasciata* of authors, not *atrifasciata* LeConte 1873.

misidentification: *biramosa calida* of authors, not *biramosa calida* Knull 1958.

Taxonomy: Fisher 1942; Westcott & Barr 2007.

Redescription: Fisher 1942:233 (♂), fig. 100 (clypeus, last abd. ventrite); Nelson 1967a:26 (♀), fig. 13 (last abd. ventrite); Akiyama & Ohmomo 2000: fig. 14141, 1–2 (♂, ♀).

Ecology: Beer 1949 (as *atrifasciata*); Knull 1958; Nelson 1965 (biol., distr.); 1966; Walters 1975 (as *atrifasciata*).

Distribution: **USA**: AZ, ID, NV, UT

Host(s): larvae in roots of *Atriplex nuttallii* S. Wats.; adults on *A. confertifolia* (Torr. & Frem.) S. Wats.

calida (Knull) 1958a:96 (*Chrysobothris*, ssp. of *biramosa*) (♂, ♀).

Type locality: CA, Riverside Co., Santa Rosa Mts. – Type depository: FMNH (♂).

misidentification: *atrifasciata* of authors, not *atrifasciata* LeConte 1873.

Taxonomy: Westcott & Barr 2007 (full species).

Redescription: Akiyama & Ohmomo 2000: fig. 1411, 3–4 (♂, ♀).

Ecology: Wickham 1898 (as *atrifasciata*); Nelson 1959 (as *atrifasciata*); 1960b (biol.); Barr 1971 (as *biramosa*); Barr & Westcott 1976 (biol., distr.).

Distribution: **USA**: AZ, CA, ID, NV, OR; also recorded from Mexico: BCN., possibly BCS.

Host(s): larvae in *Atriplex canescens* (Pursh) Nutt., *A. confertifolia* (Torr. & Frem.) S. Wats. and *A. nuttallii* S. Wats.; adults also on *A. lentiformis* (Torr.) S. Wats.

Genus *Sphaerobothris* Seminov-Tian-Shanskij & Richter 1934

Sphaerobothris Semenov–Tian–Shanskij & Richter 1934:93.

Type species: *Chrysobothris globicollis* Reitter 1895 (fixed by monotypy).

Taxonomy: Richter 1944:73; 1952:221; Bellamy 1985:422; Bellamy & Volkovitsh 1997:61; Volkovitsh & Kalashian 1998:307; Bellamy & Nelson 2003; Bellamy 2003a; Westcott & Barr 2007.

Ecology: Bellamy & Volkovitsh 1997:61.

Key(s): Bellamy & Volkovitsh 1997:62.

subgenus *Sphaerobothris* (*Sphaerobothris*) Semenov-Tian-Shanskij & Richter 1934
Sphaerobothris Semenov–Tian–Shanskij & Richter 1934:93.
Type species: *Chrysobothris globicollis* Reitter 1895.

platti (Cazier) 1938a:14 (*Chrysobothris*) (♂, ♀).
Type locality: CA, Riverside Co., Snow Creek – Type depository: AMNH (♀).
synonym: *santarosae* (Knull) 1947a:70 (*Chrysobothris*), figs. 8–11 (♂ genitalia, parts) – Synonymy: Knull 1970:264.
Type locality: CA, Santa Rosa Mtns., 3500' – Type depository: FMNH (♂).
Taxonomy: Knull 1970; Bellamy & Volkovitsh 1997:66.
Redescription: Fisher 1942:241 (♂, ♀), fig. 105 (parts); Bellamy & Volkovitsh 1977, figs. 2 (erroneously as fig. 3), 8, 12 (dorsal habitus, parts); Akiyama & Ohmomo 2000: fig. 1415 (♂ & ♀ as *Chrysobothris*).
Ecology: Fisher 1942; Nelson 1960b; Barr 1969a (biol., distr.); Knull 1970; MacRae & Nelson 2003 (biol.).
Distribution: **USA**: CA, NV
Host(s): larvae in *Ephedra californica* S. Wats. and *E. nevadensis* S. Wats.; adults also on *E. viridis* Cov.
santarosae (Knull 1947) [syn. of *platti*]
ulkei (LeConte) 1860:240 (*Chrysobothris*).
Type locality: TX – Type depository: MCZC (♀).
Taxonomy: Horn 1886; Fisher 1942; Bellamy & Volkovitsh 1997.
Redescription: Horn 1886: fig. (pronotum); Fisher 1942:234 (♀), fig. 101 (parts); Nelson 1980a:90 (♂), figs. 6, 7 (abd. ventrites, ♂ genitalia); Bellamy & Volkovitsh 1997, figs. 3 (erroneously as fig. 2), 9, 13 (dorsal habitus, parts); Akiyama & Ohmomo 2000: fig. 1413 (♂ & ♀ as *Chrysobothris*).
Ecology: Nelson 1962; Barr & Westcott 1976 (biol., distr.); MacRae & Nelson 2003 (biol.).
Distribution: **USA**: AZ, NM, TX; also recorded from Mexico.
Host(s): larvae in *Ephedra trifurca* Torr.

Subfamily Agrilinae Laporte 1835
"Agrilites, Agrilidae" Laporte 1835:165.
Type genus: *Agrilus* Curtis 1825.
Scutellatae Section 8 Schönherr 1817.
Agrilites Gory & Laporte 1839.
Agrilidae Gistel 1856.
Agrilides Lacordaire 1857.
Aphanisticites Jacquelin du Val 1863 (part).
Agrili LeConte 1861.
Trachydini Reitter 1906 (part).
Trachydinae Csiki 1912 (part).
Agrilina Jakobson 1913.
Trachinae Obenberger 1924 (part).
Aphanisticini Fuente 1931 (part).
Cylindromorphini Portevin 1931 (part).
Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1903; Arnett 1962; Nelson 1982; Bellamy 1985; Hołyński 1993; Bílý 1999a; Kubáň, *et al.* 2000; Kolibác 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.
Key(s): LeConte 1861:156; Kerremans 1893:116; 1903:218; Arnett 1962:485 (genera); Nelson 1982:432 (tribes); Hołyński 1993:33 (tribes & subtribes) Bellamy & Nelson 2002:104 (tribes, subtribes & genera).

Tribe Coraebini Bedel 1921
Coraebini Bedel 1921:170
Type genus: *Coraebus* Gory & Laporte 1839.
Scutellatae (Section 8, Subdivision 1) Schönherr 1817 (part).
Agrilidae Gistel 1856 (part).

Agrilides Lacordaire 1857 (part).
Aphanisticites Jacquelin du Val 1863 (part).
Agrili LeConte 1861 (part).
Agrilini Warnier 1901 (part).
Agrilites Kerremans 1903 (part).
Agrilina Jakobson 1913 (part).
Aphanisticini Fuente 1931 (part).
Cylindromorphini Portevin 1931 (part).
Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1903; Arnett 1962; Nelson 1982; Bellamy 1985; Hołyński 1993; Kubáň, *et al*. 2000; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.
Key(s): LeConte 1861:156; LeConte & Horn 1883:201; Kerremans 1893:116; 1903:218; Arnett 1962:485; Bellamy & Nelson 2002:105.

Genus *Eupristocerus* Deyrolle 1864
Eupristocerus Deyrolle 1864:113.
Type species: *Buprestis ignarus* Fabricius 1801 (= *cogitans* (Weber 1801)) (fixed by original designation).
Agrilus of authors (in part), not *Agrilus* Curtis 1825.
Buprestis of authors, not *Buprestis* Linnaeus 1758.
Coraebus of authors, not *Coraebus* Gory & Laporte 1839.
Rhaeboscelis of authors, not *Rhaeboscelis* Chevrolat 1838.
Taxonomy: Nelson 1982; Bellamy & Nelson 2002; Bellamy 2003a.
Redescription: Bright 1987:218.
Ecology: Burke 1917a (biol.).

cogitans (Weber) 1801:75 (*Buprestis*).
Type locality: "Amer. Sept." – Type depository: ZMUC.
misspelling: *cognitans* (*lapsus calami*).
synonym: *ignarus* (Fabricius) 1801:211 (*Buprestis*) – Synonymy: LeConte 1860:241.
Type locality: "Amer." – Type depository: unknown.
synonym: *ruficollis* Herbst 1801:4 (*Buprestis*) – Synonymy: Kerremans 1892:230.
Type locality: "Nordamerika" – Type depository: ZMHB.
Immature stages: Burke 1917a: plate 6, fig. 1 (larva).
Redescription: Knull 1925: plate 6, fig. 2 (adult), plate 10, fig. 3 (larval workings); Good 1925: plate 11 (wing), Akiyamam& Ohmomo 2000: fig. 1558 (♂, F).
Ecology: Knull 1920, life cycle; 1930c (biol.); Nelson, *et al*. 1981; Bright 1987; Solomon 1995 (biol., distr.); Peck & Thomas 1998 (distr.).
Distribution: **Canada**: NB,NS, ON, PQ; **USA**: AL, CT, DC, DE, FL, GA, KY, MA, MD, ME, MI, MS, NC, NH, NJ, NY, OH, PA SC, VA, VT
Host(s): larvae in living *Alnus incana* L. Moench, *A. rugosa* (DuRoi) Clausen and *Betula nigra* L.

Tribe Agrilini Laporte 1835
"Agrilites, Agrilidae" Laporte 1835:165.
Scutellatae Section 8 Subdivisions 2 & 3 Schönherr 1817.
Agrilites Gory & Laporte 1839 (part).
Agrilidae Gistel 1856 (part).
Agrilides Lacordaire 1857 (part).
Aphanisticites Jacquelin du Val 1863 (part).
Agrili LeConte 1861 (part).
Trachydini Reitter 1906 (part).
Trachydinae Csiki 1912 (part).
Agrilina Jakobson 1913 (part).
Trachinae Obenberger 1924 (part).
Aphanisticini Fuente 1931 (part).
Cylindromorphini Portevin 1931 (Part).

Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1903; Arnett 1962; Nelson 1982; Bellamy 1985; Hołyński 1993; Kubáň, *et al.* 2000; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.

Key(s): LeConte 1861:156; LeConte & Horn 1883:201; Kerremans 1893:116; 1903: 218; Arnett 1962:485 (genera); Hołyński 1993:33 (subtribes); Bellamy & Nelson 2002:105 (genera).

Genus *Lepismadora* Velten 1987

Lepismadora Velten *in* Velten & Bellamy 1987:186, figs. 1, 2, 4, 6, 9–11.

Type species: *Lepismadera algodones* Velten 1987 (fixed by original designation).

Taxonomy: Velten & Bellamy 1987; Kubáň, *et al.* 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Ecology: Velten & Bellamy 1987.

Key(s): Velten & Bellamy 1987.

algodones Velten *in* Velten & Bellamy 1987:188, figs. 1, 2, 4, 6, 9–11.

Type locality: CA, Imperial Co., Algodones Sand Hills, 7.2 mi W Glamis – Type depository: CASC 15918 (♂).

Taxonomy: Velten & Bellamy 1987.

Redescription: Akiyama & Ohmomo 2000: fig. 1620 (♂, ♀).

Ecology: Velten & Bellamy 1987 (biol., distr.).

Distribution: **USA**: CA

Host(s): adults on *Tiquilia plicata* (Torr.) Richards.

Subtribe Rhaeboscelidina Cobos 1976

Rhaeboscelidina Cobos 1976:20.

Type genus: *Rhaeboscelis* Chevrolat 1838.

Classification: Cobos 1976; Hołyński 1993; Bellamy & Nelson 2002; Bellamy 2003a.

Key(s): Cobos 1976:22; Bellamy & Nelson 2002:105 (genera).

Genus *Paragrilus* Saunders 1871

Clinocera Deyrolle 1864:116 (preoccupied: *Clinocera* Meigen 1803; unavailable name, cited without description, definition or indication (ICZN 1999 Article 12.1)).

Paragrilus Saunders 1871:127 (replacement name for *Clinocera* Deyrolle 1864).

Type species: *Agrilus modicus* Solier 1833 (fixed by subsequent designation: Nelson 1987b:71).

Agrilus of authors (in part), not *Agrilus* Curtis 1825.

Rhaeboscelis of authors, not *Rhaeboscelis* Chevrolat 1838.

Taxonomy: Bellamy & Nelson 2002; Hespenheide 2002 (revision); Bellamy 2003a.

Redescription: Hespenheide 2002:2.

Ecology: Hespenheide 2002 (biol., distr.).

Key(s): Hespenheide 2002 (N & C Amer. sp.)

burkei Hespenheide 2002:22 (♂, ♀), figs. 16, 32 (adult, ♂ genitalia).

Type locality: Arizona, Cochise Co., 8 mi E Sierra Vista – Type depository: TAMU (to be deposited in USNM (♂)).

Taxonomy: Hespenheide 2002.

Ecology: Hespenheide 2002 (biol., distr.).

Distribution: **USA**: AZ; also recorded from Mexico and Central America.

Host(s): unknown.

lecontei Obenberger 1924 [syn. of *tenuis*]

rugatulus Thomson 1879:74.

Type locality: Mexico – Type depository: MNHN.

synonym: *texanus* (Schaeffer) 1904:211 (*Rhaeboscelis*) – Synonymy: Hespenheide 1979a:118.

Type locality: TX, Brownsville, Esperanza Ranch – Type depository: USNM (♂) (Lectotype designation: Bellamy & Nelson 1990:295).

Taxonomy: Hespenheide 1979a.

Redescription: Akiyama & Ohmomo 2000: fig. 1701; Hespenheide 2002:11, figs. 6, 24 (dorsal, M, genitalia).

Ecology: Vogt 1949b (biol. as *texanus*); Hespenheide 2002 (biol., distr.).
Distribution: **USA**: TX; also recorded from Mexico.
Host(s): adults on *Acacia farnesiana* (L.) Willd., *Callirhoe* sp., *Leucaena pulverulenta* (Schlecht.) Benth., Malvaceae, *Prosopis glandulosa* Torr. and *Sida* spp.

tenuis (LeConte) 1863:82 (*Rhaeboscelis*).
Type locality: MD – Type depository: MCZC (Lectotype not designated).
synonym: *lecontei* Obenberger 1924:149 (as subspecies of *tenuis*) – Synonymy: Hespenheide 1979a:118.
Type locality: NJ, Angelsea – Type depository: NMPC.
Immature stages: Weiss & Dickerson 1919 (larva & pupa).
Taxonomy: Hespenheide 1979a; 2002.
Redescription: Knull 1925: plate 5, fig. 4 (adult); Good 1925: plate 11 (wing); Hespenheide 2002:12, figs. 7, 25 (adult, ♂ genitalia).
Ecology: Chamberlin 1926; Hespenheide 2002; MacRae 2006 (biol., distr.); Nelson 1987a; Nelson & MacRae 1990 (distr.); Knull 1922 (biol.).
Distribution: **USA**: DC, DE, FL, GA, IL, MD, MO, MS, NC, NJ, NY, PA
Host(s): larvae in *Hibiscus laevis* All., *H. lasiocarpos* Cav., *H. moscheutos* L. and *H. moscheutos* ssp. *lasiocarpos* (Cav.) O. J. Blanchard.

texanus (Schaeffer 1904) [syn. of *rugatulus*]

Subtribe Agrilina Laporte 1835
Agrilina: Cobos 1988:10.
Classification: Hołyński 1993; Kubáň, *et al*. 2000; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.
Key(s): Bellamy & Nelson 2002:105 (genera).

Genus *Agrilus* Curtis 1825
Agrilus Curtis 1825:no. 67.
Type species: *Buprestis viridis* Linnaeus 1758 (fixed by original designation).
Teres Harris 1829:2 – Synonymy: Fisher 1928a:3.
Type species: Unavailable name, cited without description, definition or indication (ICZN 1999 Article 12.1)).
Paradomorphus Waterhouse 1887:183 – Synonymy: Hespenheide 1974a:49.
Type species: *Agrilus frontalis* Laporte & Gory 1887 (fixed by original designation).
Immature stages: Burke 1917a: plate 6, fig. 2 (larva).
Taxonomy: Horn 1891 (revision); Fisher 1928a (revision); Hespenheide 1974a; Bellamy 1995b; Bellamy & Nelson 2002; Bellamy 2003a; MacRae 2003 (*otiosus* group).
Redescription: Fisher 1928a:3.
Ecology: Burke 1917a (biol.); Fisher 1928a (biol., distr.).
Key(s): Fisher 1928a:8 (USA & Canada); Barr 1971; 87 (Pacific NW); Wellso, *et al*. 1976:13(MI); Bright 1987:221 (Canada & AK); MacRae 1991:114 (MO); Downie & Arnett 1996:759 (NE No. Amer.); MacRae 2003:7 (males of *otiosus* group).

subgenus *Agrilus* (*Agrilus*) Curtis 1825
Agrilus Curtis 1825, no. 67.
Type species: *Buprestis viridis* Linnaeus 1758.

abditus Horn 1891b:332.
Type locality: W NV – Type depository: MCZC 33831 (♀) (Lectotype designation: Fisher 1928a:315).
Taxonomy: Horn 1891b; Fisher 1928a; Bellamy & Nelson 2002.
Redescription: Fisher 1928a:313 (♂, ♀), fig. 86 (♂ genitalia).
Ecology: Fisher 1928a (distr.); Nelson, *et al*. 1996 (biol., distr.).
Distribution: **USA**: AZ, NM, NV
Host(s): adults on *Quercus arizonica* Sarg.

abductus Horn 1891b:325.
Type locality: TX – Type depository: MCZC 33828 (♀) (Lectotype designation: Fisher 1928a:283).
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Fisher 1928a:281 (♂, ♀), fig. 74 (♂ genitalia).

Ecology: Fisher 1928a; Hespenheide 1974; Nelson & Westcott 1976; (distr. & biol.); Westcott, *et al.* 1990; Nelson & MacRae 1990; Westcott 2005 (distr.); Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AL, GA, LA, MO, NC, OK, TN, TX; also recorded from Mexico.
Host(s): adults on *Cornus florida* L.; *Quercus stellata* Wangenh. and *Zanthoxylum clava-herculis* L.

abjectus Horn 1891b:321.
Type locality: TX – Type depository: MCZC 33827 (♀) (Lectotype designation: Fisher 1928a:297).
Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:295 (♂, ♀), fig. 79 (♂ genitalia).
Ecology: Fisher 1928a (distr.).
Distribution: **USA**: TX
Host(s): unknown.

abstersus Horn 1891b:324.
Type locality: S AZ – Type depository: MCZC 2140 (♂) (Lectotype designation: Fisher 1928a:330).
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Fisher 1928a:329 (♂, ♀), fig. 91 (♂ genitalia).
Ecology: Fisher 1928a; Nelson & Westcott 1976; Nelson, *et al.* 1981 (biol.); Nelson 1987a (biol., distr.); Westcott, *et al.* 1990; Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): larvae in *Acacia greggii* Gray and *Castela emoryi* (Gray) Moran & Felger; adults also on *Acacia constricta* Benth., *Celtis ehrenbergiana* (Klot.) Liebm., *Olneya tesota* Gray and *Prosopis glandulosa* Torr.

acaciae Fisher 1928a:279 (♂, ♀), fig. 73 (♂ genitalia).
Type locality: TX, Brownsville, Los Borregos – Type depository: USNM 41010 (♂).
Taxonomy: Fisher 1928a.
Ecology: Fisher 1928a; Vogt 1949b; Nelson & Westcott 1976; Nelson, *et al.* 1981; Westcott, *et al.* 1990; MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.); Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: TX; also recorded from Mexico.
Host(s): larvae in *Acacia farnesiana* (L.) Willd., *A. rigidula* Benth., *Leucaena pulverulenta* (Schlecht.) Benth. and *Prosopis glandulosa* Torr.; adults also on *Ebenopis ebano* (Berl.) Barney & Grimes.

acutipennis Mannerheim 1837:109.
Type locality: "Amer. Bor." – Type depository: UZMH (♂) (Lectotype designation: Nelson 1976:168).
synonym: *latebrus* Gory & Laporte 1837:38, plate 9, fig. 50 (adult) – Synonymy: LeConte 1857a:9.
Type locality: "Caroline" – Type depository: MNHN.
Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:127 (♂, ♀), fig. 30 (♂ genitalia).
Ecology: Fisher 1928a; Nelson, *et al.* 1981; Bright 1987; Nelson 1987a (distr.); Nelson & MacRae 1990; MacRae 1991 (biol.); Solomon 1995; MacRae & Nelson 2003; MacRae 2006 (biol., distr.) ; Westcott 2007b (biol.).
Distribution: **Canada**: NF, ON, PQ; **USA**: AL, AR, CO, CT, FL, GA, IA, IL, IN, KS, LA, MA, ME, MI, MN, MO, MS, NC, NJ, NY, OH, OK, PA, SC, TX, VA, WI
Host(s): larvae in *Quercus alba* L.and *Q. lyrata* Walt.; adults also on *Amelanchier arborea* (Michx. f.) Fern., *Betula* sp., *Carya cordiformis* (Wangenh.) K. Koch, *Corylus americana* Walt., *Diospyros virginiana* L., *Juglans nigra* L., *Populus* sp., *Quercus imbricaria* Michx., *Q. laurifolia* Michx., *Q. macrocarpa* Michx., *Q. marilandica* (L.) Muenchh., *Q. stellata* Wangenh. and *Q. velutina* Lam.

addendus Crotch 1873:95.
Type locality: TX – Type depository: MCZC 5079 (Lectotype designation: Hespenheide 2007:64).
synonym: *frisoni* Fisher 1943b:201 – Synonymy: Hespenheide 2007:63.
Type locality: TX – Type depository: USNM 56659 (♂).
Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:267 (♂, ♀).
Ecology: Fisher 1928a (biol., distr.); Van Dyke 1942; Vogt 1949b (biol.); Nelson, *et al.* 1981; Westcott, *et al.* 1990; MacRae & Nelson 2003 (biol., distr. as *frisoni*); Wellso & Jackman 2006 (distr.).
Distribution: **USA**: ND, NM, OK, TX, also recorded from Mexico.
Host(s): adults on *Acacia farnesiana* (L.) Willd., *A. rigidula* Benth. and *Prosopis glandulosa* Torr.

aeneocephalus Fisher 1928a:245 (♂, ♀), fig. 61 (♂ genitalia).
Type locality: AZ, Huachuca Mtns. – Type depository: USNM 41008 (♂).
Taxonomy: Fisher 1928a.
Ecology: Nelson 1965 ; MacRae & Nelson 2003 (biol.).
Distribution: **USA**: AZ
Host(s): adults on *Acacia angustissima* (Mill.) Kuntze, *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby, *M. dysocarpa* Benth. and *M. grahamii* Gray.

albocomus Fisher 1928a:59 (♂, ♀).
Type locality: AZ, Williams – Type depository: USNM 40990 (♂).
Taxonomy: Fisher 1928a.
Ecology: Fisher 1928a; MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, NM, TX
Host(s): larvae in *Quercus emoryi* Torr. and *Q. grisea* Liebm.; adults also on *Q. gambelii* Nutt. and *Rhus glabra* L.

amabilis Gory & Laporte 1837 [syn. of *cyanescens*]

amelanchieri Knull 1944a:80 (♂, ♀), plate 2, fig. 10 (♂ genitalia).
Type locality: PA, Mont Alto – Type depository: FMNH (♂).
misidentification: *arcuatus* of Knull 1930c:84, not *arcuatus* Say 1825.
Taxonomy: Knull 1944a.
Ecology: Nelson & Westcott 1976; Westcott 1991 (biol., distr.); 2001b (distr.).
Distribution: **USA**: CA, CO, MI, ND, NV, OR, PA, UT
Host(s): larvae in *Amelanchier canadensis* (L.) Medik.; adults also on *Amelanchier alnifolia* (Nutt.) Nutt. ex Roemer and *Crataegus douglasii* Lindl.

angelicus Horn 1891b:298.
Type locality: CA, near Los Angeles – Type depository: MCZC (♀) (Lectotype designation: Fisher 1928a:55).
misidentification: *arcuatus* of Chamberlin 1926:52 (part), not *arcuatus* Say 1825.
misidentification: *politus* of authors (in part), not *politus* Say 1825.
Immature stages: Burke 1920c (life cycle).
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Fisher 1928a:53 (♂, ♀), fig. 10 (♂ genitalia).
Ecology: Fisher 1928a (biol., distr.); Brown & Eads 1965; Nelson & Westcott 1976 (distr.); Solomon 1995 (biol.).
Distribution: **USA**: CA, OR
Host(s): larvae in *Lithocarpus densiflora* (H & A.) Rehd., *Quercus agrifolia* Neé, *Q. chrysolepis* Liebm., *Q. durata* Jeps., *Q. engelmannii* Greene, *Q. kelloggii* Newb. and *Q. wislizeni* A. DC.

anxius Gory 1841:226, plate 37, fig. 217 (adult).
Type locality: "Amer. Bor." – Type depository: MNHN (Lectotype not designated).
synonym: *gravis* LeConte 1860:247 – Synonymy: Horn 1891b:335.
Type locality: Lake Superior – Type depository: MCZC 2738 (♀) (Lectotype not designated).
synonym: *torpidus* LeConte 1860:247 – Synonymy: Horn 1891b:335.
Type locality: Lake Superior – Type depository: MCZC 2739 (♂).
misidentification: *bilineatus* of Moffatt 1900:100, not *bilineatus* Weber 1801.
Immature stages: Barter 1957:13, figs. 2–6 (egg, larva, pupa).
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Fisher 1928a:116 (♂, ♀), fig. 35 (♂ genitalia); Carlson & Knight 1969: figs. 3, 4B, 5 (parts).
Ecology: Fisher 1928a; Barter 1957; Carlson & Knight 1969; Nelson & Westcott 1976; Bright 1987; Nelson 1987a; Westcott 1991; Dearborn & Donahue 1993 (parasitoids); Solomon 1995 (biol., distr.); Nelson, *et al.* 1996; MacRae 2006 (distr.).
Distribution: **Canada**: AB, BC, NB, ON, PQ; **USA**: AZ, CO, CT, DE, GA, IA, ID, IL, IN, KY MA, MD, ME, MI, MN, MO, MT, ND, NH, NJ, NM, NV, NY, OH, OR, PA, RI, SD, UT, VA, VT, WA, WI, WV, WY
Host(s): larvae in *Betula alleghaniensis* Britt., *B. lenta* L, *B. occodentalis* Hook., *B. papyrifera* Marsh., *B. pendula* Roth., *B. platyphylla* Suk., *B. populifolia* Marsh., *B. pubescens* Ehrh., *Populus balsamifera* L., *P. b. trichocarpa* (T. & G.) Brayshaw, *P. deltoides* Bartr. ex Marsh, *P. grandidentata* Michx. and *P. tremuloides* Michx.

apachei Knull 1938 [syn. of *delicatulus*]

arbuti Fisher 1928a:50 (♂, ♀).
Type locality: OR, Ashland – Type depository: USNM 40989 (♂).
synonym: *manzanitae* Chamberlin 1929:113 – Synonymy: Leng & Mutchler 1933:85.
Type locality: OR, Ashland – Type depository: CASC 5507 (♀).
Taxonomy: Fisher 1928a.
Ecology: Fisher 1928a (biol., distr.); Nelson 1960b (biol.).
Distribution: **USA**: CA, OR
Host(s): larvae in *Arbutus menziesii* Pursh; adults also on *Arctostaphylos glauca* Lindl., *A. manzanita* Parry, *A. tomentosa* (Pursh) Lindl. and *A. viscida* Parry.

arcuatus (Say) 1825:251 (*Buprestis*).
Type locality: MI, Lake Superior, Eagle Harbor – Type depository: MCZC (♀) (Type of *obliquus* LeConte designated as neotype of *arcuatus* Say 1825 by Fisher 1928a:66 (*arcuatus* No. 10)).
synonym: *obliquus* LeConte 1860:243 – Synonymy: Horn 1891b:334.
Type locality: MI, Lake Superior, Eagle Harbor – Type depository: MCZC 2125 (♀).
misidentification: *politus* of Ruggles 1918:15, not *politus* Say 1825.
misidentification: *torquatus* of Ruggles 1918:15, not *torquatus* LeConte 1860b.
Immature stages: Ruggles 1918 (egg, larva).
Taxonomy: Fisher 1928a; Nelson & Hespenheide 1998.
Redescription: Ruggles 1918: plate 1, figs. 1, 2 (adults); Fisher 1928a:64 (♂, ♀), fig. 13 (♂ genitalia).
Ecology: Mutchler & Weiss 1922; Fisher 1928a; Hespenheide 1974 (biol.); Nelson & Westcott 1976; Bright 1987; Nelson 1987a; Dearborn & Donahue 1993; Peck & Thomas 1998; MacRae & Nelson 2003 (distr.); MacRae 2006 (biol., distr.).
Distribution: **Canada**: ON, PQ; **USA**: AL, AR, CT, DC, FL, GA, IA, IL, IN, KS, KY, MA, MD, ME, MI, MN, MO, MS, MT, NC, NH, NJ, NY, OH, OK, PA, SC, SD, VA, WV
Host(s): larvae in *Castanea dentata* (Marsh.) Borkh., *Fagus grandifolia* Ehrh., *Quercus alba* L., *Q. ilicifolia* Wangenh. and *Q. velutina* Lam.; adults also on *Carya* sp., *Juglans nigra* L., *Quercus shumardii* Buckl. and *Q. stellata* Wangenh.

arizonicus Obenberger 1936b:139 (replacement name for *strigicollis* Fall 1912).
synonym: *strigicollis* Fall 1912:41 (preoccupied: *strigicollis* Rey 1891).
Type locality: AZ, Huachuca Mtns. – Type depository: MCZC 24450 (♀).
Taxonomy: Fisher 1928a (as *strigicollis*).
Redescription: Fisher 1928a:232 (♂, ♀), fig. 57 (♂ genitalia as *strigicollis*).
Ecology: Knull 1970 (biol.); Nelson & Westcott 1976; Westcott, *et al*. 1990; Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): adults on *Desmodium batocaulon* Gray.

arizonus Knull 1934a:11.
Type locality: AZ, White Mtns. – Type depository: FMNH (♀).
Taxonomy: Knull 1934a.
Distribution: **USA**: AZ
Host(s): unknown.

asperulus Waterhouse 1889:101, plate 6, fig. 7 (adult).
Type locality: Mexico: Ciudad in Durango 8100' – Type depository: BMNH.
synonym: *exhuachucae* Knull 1937d:305 – Synonymy: Hespenheide 1979a:105.
Type locality: AZ, Huachuca Mtns. – Type depository: FMNH (♂).
Taxonomy: Waterhouse 1889; Hespenheide 1979.
Redescription: Knull 1937d:305 (♂ & ♀ as *exhuachucae*); 1944a: plate 2, fig. 12 (♂ genitalia as *exhuachucae*).
Ecology: Nelson & Westcott 1976 (biol. as *exhuachucae*); Westcott, *et al*. 1990; MacRae & Nelson 2003 (biol.); Westcott & Hespenheide 2006 (distr.); .
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): adults on *Baccharis sarothroides* Gray, *Bouvardia ternifolia* (Cav.) Schlecht., *Quercus hypoleucoides* Camus and *Rhus virens* Lindenheimer ex Gray var. *choriophylla* (Woot. & Standl.) L. Benson.

atricornis Fisher 1928a:86 (♂, ♀).
Type locality: CT, Lyme – Type depository: USNM 40991 (♂).
Taxonomy: Fisher 1928a; MacRae 2003.
Ecology: Fisher 1928a; MacRae 2006 (biol., distr.).
Distribution: **Canada**: ON; **USA**: CT, IL, MA, MI, RI
Host(s): larvae in *Quercus phellos* L. and *Salix nigra* Marsh.; adults also on *Corylus americana* Walt.
audax Horn 1891b:300.
Type locality: TX – Type depository: MCZC 33820 (♂) (Lectotype designation: Fisher 1928a:111).
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Fisher 1928a:109 (♂, ♀), fig. 26 (♂ genitalia).
Ecology: Knull 1934c; Nelson & MacRae 1990 (biol., distr.).; MacRae & Nelson 2003 (biol.); MacRae 2006 (distr.).
Distribution: **USA**: AZ, IL, MO, OK, TX
Host(s): larvae in *Ulmus fulva* Muhl.; adults also on *Quercus macrocarpa* Michx. and *Q. marilandica* Muench.
aureus Chevrolat 1838:98.
Type locality: Mexico: Tuspan – Type depository: BMNH.
synonym: *couesii* LeConte 1866:384 – Synonymy: LeConte 1873:333.
Type locality: AZ – Type depository: MCZC (♀)
Taxonomy: Horn 1891b (as *couesii*); Fisher 1928a.
Redescription: Horn 1891b: fig. 1 (elytra, as *couesii*); Fisher 1928a:169 (♂, ♀), fig. 37 (♂ genitalia).
Ecology: Fisher 1928a; Nelson & Westcott 1976; Westcott, *et al*. 1990 (biol., distr.); Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ, NM, TX; also recorded from Mexico.
Host(s): adults on *Mentzelia nuda* (Pursh) T. & G. and *Sphaeralcea angustifolia* (Cav.) G. Don.
aurichalceus Redtenbacher 1849 [syn. of *cuprescens*]
auricomus Frost 1912 [syn. of *nigricans*]
aurilaterus Waterhouse 1889:120.
Type locality: Mexico: Chihuahua, Pinos Altos – Type depository: BMNH (Lectotype designation: Hespenheide 1974c:74).
Taxonomy: Waterhouse 1899.
Redescription: Hespenheide 1974c: fig. 1 (♂ genitalia).
Ecology: Hespenheide 1974c (biol., distr.); Walters 1978; Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): adults on *Baccharis sergiloides* Gray.
auroguttatus Schaeffer 1905 [syn. of *coxalis*]
aurolineatus Gory 1841 [syn. of *bilineatus*]
azureus Knull 1922 [syn. of *carpini*]
baboquivariae Fisher 1928a:184 (♂) 186 (♀ from SEMC), fig. 42 (♂ genitalia).
Type locality: AZ – Type depository: USNM 41000 (♂).
Taxonomy: Fisher 1928a.
Ecology: Knull 1944a; Nelson & Westcott 1976; Nelson, *et al*. 1981 (biol.); Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): larvae in *Celtis ehrenbergia* (Klot.) Liebm.; adults also on *Bumelia* sp., *Condalia* sp. and *Sapindus* sp.
barberi Fisher 1928a:311 (♂, ♀), fig. 85 (♂ genitalia).
Type locality: AZ, Williams – Type depository: USNM 41014 (♂).
Taxonomy: Fisher 1928a.
Ecology: Fisher 1928a (distr.); Knull 1944a; Nelson, *et al*. 1981 (biol.).
Distribution: **USA**: AZ
Host(s): adults on *Rhamnus* sp. and *Robinia neomexicana* Gray.
benjamini Fisher 1928a:107 (♂) 109 (♀ from SEMC), fig. 25 (♂ genitalia).
Type locality: TX, Victoria – Type depository: USNM 40992 (♂).
Taxonomy: Fisher 1928a.
Ecology: Fisher 1928a (biol., distr.); Nelson & Westcott 1976; Nelson 1987a; MacRae 1991; Peck &

Thomas 1998 (distr.); MacRae & Nelson 2003 (biol.).
Distribution: **USA**: IL, KS, MO, OK, TX
Host(s): adults on *Quercus alba* L. and *Q. macrocarpa* Michx.

bentseni Knull 1954a:28.
Type locality: TX, Hidalgo Co., Bentsen Rio Grande State Park – Type depository: FMNH (♀).
Taxonomy: Knull 1954a; 1966b.
Redescription: Knull 1966b:238 (♂), figs. 1, 2 (♂ genitalia).
Ecology: Knull 1966b (biol.); MacRae 2006 (distr.).
Distribution: **USA**: TX
Host(s): adults on *Bernardia myricifolia* (Scheele) S. Wats.

bespencus Barr 2008:34 (♂, ♀), figs. 2, 5 (adult ♂, ♂ genitalia).
misidentification: *pubescens* of authors, not *pubescens* Fisher, 1928.
Type locality: Sheffield Tex. – Type depository: USNM (♂).
Taxonomy: Barr 2008.
Ecology: Barr 2008 (biol., distr.).
Distribution: **USA**: TX
Host(s): unknown.

betulae Fisher 1928 [syn. of *pensus*]

betulanigrae MacRae 2003:1 (♂, ♀), figs. 1–3 (adult ♂, ♂ genitalia).
Type locality: **USA**: MO, Carter Co. Ozark National Scenic Riverway, Big Spring Cpgd., T27N R1E S31 (SE ¼) – Type depository: USNM (♂).
Taxonomy: MacRae 2003.
Ecology: MacRae 2003; 2006 (biol., distr.).
Distribution: **USA**: MO
Host(s): larvae in *Betula nigra* L. and *Aesculus glabra* L.

bilineatus (Weber) 1801:74 (*Buprestis*).
Type locality: "Amer." – Type depository: unknown.
synonym: *bivittatus* Kirby 1837:161 – Synonymy: LeConte 1860:245.
Type locality: "Canad." – Type depository: BMNH.
synonym: *flavolineatus* Mannerheim 1837:110 – Synonymy: LeConte 1860:245.
Type locality: "Amer. Bor." – Type depository: MZHF?.
synonym: *aurolineatus* Gory 1841:248, plate 41, fig. 241 (adult) – Synonymy: LeConte 1860:245.
Type locality: "Amer. Bor." – Type depository: MNHN.
Immature stages: Burke 1917a: plate 6, fig. 2 (Larva).
Taxonomy: Fisher 1928a; Nelson & Hespenheide 1998.
Redescription: Knull 1925: plate 1, fig. 8 (pygidium), plate 6, fig. 3 (adult); Fisher 1928a:116 (♂, ♀), fig. 27 (♂ genitalia).
Ecology: Burke 1917a; Mutchler & Weiss 1922; Fisher 1928a; Nelson, *et al*. 1981; Bright 1987; Nelson 1987a (distr.); Dearborn & Donahue 1993; Solomon 1995; MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.).
Distribution: **Canada**: ON, PQ; **USA**: AL, AR, CT, DC, DE, FL, GA IA, IL, IN, KS, MA, MD, ME, MI, MO, MS, NC, NH, NJ, NY, OH, OK, PA, RI, SC, SD, TX, VA, WI, WV
Host(s): larvae in *Quercus alba* L., *Q. coccinea* Muenchh., *Q. lyrata* Walt., *Q. macrocarpa* Michx., *Q. muehlenbergii* Engelm., *Q. rubra* L., *Q. stellata* Wangenh. and *Q. velutina* Lam.; adults also on *Abies* sp., *Q. palustris* Muenchh. and feeding on chestnut blight fungal spores (*Cryphonectria parasitica* (Murr.) Barr).

bivittatus Kirby 1837 [syn. of *bilineatus*]

blanchardi Horn 1891 [syn. of *horni*]

blandus Horn 1891b:321.
Type locality: CA, Tehachapi – Type depository: MCZC 33826 (♂) (Lectotype designation: Fisher 1928a:299).
Taxonomy: Fisher 1928a.
Recescription: Fisher 1928a:297 (♂, ♀), fig.80 (♂ genitalia).
Ecology: Fisher 1928a (distr.); Nelson & Westcott 1976 (biol.).
Distribution: **USA**: CA
Host(s): larvae in *Eriogonum elongatum* Benth.; adults also on *E. fasciculatum* (Benth.) T. & G.

browni Carlson & Knight 1969 [syn. of *sayi*]
burkei Fisher 1917:287 (♂, ♀).
Type locality: CA, Placerville – Type depository: USNM 21386 (♂).
misidentification: *politus* of authors, not *politus* Say 1825.
Taxonomy: Fisher 1928a; Barr 1971.
Redescription: Helfer 1970:93 fig. (adult).
Ecology: Fisher 1928a (biol., distr.); Davis 1991 (distr.); Maser & Beer 1971; Solomon 1995 (biol.).
Distribution: **Canada**: AB, BC; **USA**: CA, ID, OR, WA, WY
Host(s): larvae in *Alnus rhombifolia* Nutt. and *A. incana* (L.) Moench ssp. *tenuifolia* (Nutt.) Breitung.
caeruleus Rossi 1792 [syn. of *cyanescens*]
californicus Westcott & Nelson 2000 [syn. of *parvus*]
canadensis Obenberger 1917 [syn. of *politus*]
carpini Knull 1923b:105 (replacement name for *azureus* Knull 1922).
synonym: *azureus* Knull 1922:84 (♂, ♀) (as variety of *bilineatus*, preoccupied: *azureus* Kerremans 1899).
Type locality: PA, Hummelstown – Type depository: FMNH (♂).
Taxonomy: Fisher 1928a; Nelson & Hespenheide 1998.
Redescription: Fisher 1928a:119 (♂) (as subspecies of *bilineatus*).
Ecology: Fisher 1928a (biol., distr.); Hespenheide 1979b; Nelson, *et al*. 1981; 1996; Davies 1991; Peck & Thomas 1998; Westcott 2001b (distr.).
Distribution: **Canada**: ON, PQ; **USA**: CT, IL, MI, OH, PA,SC, VT, WI
Host(s): larvae in living *Carpinus caroliniana* Walt., *Fagus grandifolia* Ehrh. and *Ostrya virginiana* (Mill.) K. Koch.
catalinae Knull 1940b:556, fig. 4 (♂ genitalia).
Type locality: AZ, near Tucson – Type depository: FMNH (♂).
Taxonomy: Knull 1940b.
Ecology: Westcott, *et al*. 1990; Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): unknown.
cavatus Chevrolat 1838:99.
Type locality: Mexico – Type depository: BMNH.
synonym: *texanus* Crotch 1873:94 – Synonymy: Horn 1891b:335.
Type locality: TX – Type depository: MCZC, ANSP (Lectotype not designated).
Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:166 (♂, ♀) fig. 36 (♂ genitalia).
Ecology: Fisher 1928a; Nelson 1965; Nelson & Westcott 1976; Walters & Bellamy 1982 (biol.); Westcott, *et al*. 1990; Wellso & Jackman 2006; Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ, OK, TX; also recorded from Mexico. and South America.
Host(s): adults on *Acacia angustissima* (Mill.) Kuntz var. *suffrutescens* (Rose) Isely.
cavifrons Waterhouse 1889:189, plate 9, fig. 18 (adult).
Type locality: Mexico: Venta de Zopilote in Guerrero – Type depository: BMNH.
Taxonomy: Waterhouse 1889; Knull 1944a.
Redescription: Knull 1944a:75 (♂, ♀), plate 2, fig. 6 (♂ genitalia).
Ecology: Knull 1937d (biol.); Westcott, *et al*. 1990; MacRae 2006 (biol., distr.); Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): larvae in *Celtis ehrenbergiana* (Klot.) Liebm.
celti Knull 1920:11 (♂, ♀).
Type locality: PA, Hummelstown – Type depository: FMNH (♂).
misidentification: *egenus* of authors, not *egenus* Gory 1841.
Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:322 (♂, ♀), fig. 89 (♂ genitalia).
Ecology: Fisher 1928a (biol., distr.); Nelson & Westcott 1976; Nelson, *et al*. 1981; Nelson 1987a; MacRae 1991 (biol.); Westcott 2001b; MacRae 2006 (distr.).
Distribution: **Canada**: ON; **USA**: AR, CT, DC, GA, IA, IL, IN, KS, KY, MD, MI, MO, NE, ND, NH, NY, OH, OK, PA, SC, SD, TN, TX, VA, WV
Host(s): larvae in *Celtis laevigatus* Willd.and *C. occidentalis* L.; adults also on *C. tenuifolia* Nutt.,

Cercis canadensis L., *Corylus americanus* Walt. and *Gleditsia triacanthos* L.

celticola Fisher 1928 [ssp. of *lecontei*]

cephalicus LeConte 1860:249.
Type locality: DC – Type depository: MCZC 2248 (Lectotype not designated).
misidentification: *egenus* of authors (in part), not *egenus* Gory 1841.
misidentification: *otiosus* of authors (in part), not *otiosus* Say 1833.
Taxonomy: Fisher 1928a.
Redescription: Knull 1925: figs. 29, 30 (parts); Fisher 1928a:229 (♂, ♀), fig. 56 (♂ genitalia).
Ecology: Fisher 1928a (biol., distr.); Hespenheide 1974; Nelson & Westcott 1976; Davies 1991; MacRae 1991; Solomon 1995 (biol.); Peck & Thomas 1998 (distr.); Westcott 2007b (distr.).
Distribution: **Canada**: AB, MB, ON; **USA**: AL, CT, DC, DE, FL, GA, IA, IL, IN, KS, KY, LA, MA, MD, MI, MO, MS, NC, NE, NJ, NY, OH, OK, PA, SC, SD, TX, VA, WI, WV
Host(s): larvae in *Cornus florida* L.; adults also on *C. racemosa* Lam. and *Juglans nigra* L.

cercidii Knull 1937d:304 (♂, ♀).
Type locality: AZ, Sabino Cyn., near Tucson – Type depository: FMNH (♂).
synonym: *teuqualoi* Fisher 1938:136 – Synonymy: Hespenheide 1984:306.
Type locality: Mexico: Temescaltepec, Tejupilco – Type depository: USNM 51566 (♂).
Taxonomy: Knull 1937d; Hespenheide 1984.
Redescription: Knull 1944a: plate 3, fig. 16 (♂ genitalia).
Ecology: Knull 1937d (biol., distr.); Westcott, *et al*. 1990; Westcott 1991; Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ, NM; also recorded from Mexico.
Host(s): adults on *Cercidium floridum* Gray.

champlaini Frost 1912:245 (♂, ♀).
Type locality: CT, Lyme – Type depository: USNM 66204 (♂).
misidentification: *otiosus* of Felt 1916:95, not *otiosus* Say 1833.
Immature stages: Knull 1925: plate 9, fig. 1 (larval workings).
Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:27 (♂, ♀), fig. 3 (♂ genitalia).
Ecology: Fisher 1928a; Knull 1947b; Nelson & MacRae 1990; Solomon 1995 (biol., distr.).
Distribution: **USA**: CT, MI, MO, NY, OH, PA, WV
Host(s): larvae in *Carpinus caroliniana* Walt. and *Ostrya virginiana* (Mill.) K. Koch.

chiricahuae Fisher 1928a:243 (♂, ♀), fig. 60 (♂ genitalia).
Type locality: AZ, Williams – Type depository: USNM 41003 (♂).
Taxonomy: Fisher 1928a.
Ecology: Nelson & Westcott 1976; Nelson, *et al*. 1996; MacRae & Nelson 2003 (biol.); Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ, NM; also recorded from Mexico.
Host(s): larvae in *Quercus hypoleucoides* Camus.; adults also on *Mimosa* sp., *Platanus wrightii* S. Wats., *Quercus emoryi* Torr. and *Q. gambelii* Nutt.

chisosanus Knull 1956 [syn. of *obscurilineatus*]

cladrastis Knull 1945:80 (♂, ♀), plate 1, figs. 3, 4 (♂ genitalia).
Type locality: KY, Lexington – Type depository: FMNH (♂).
Taxonomy: Knull 1945.
Ecology: Knull 1945 (biol.); Nelson, *et al*. 1981 (distr.); Westcott 2007b (distr.).
Distribution: **USA**: KY, MO, MS
Host(s): adults on *Cladrastis kentukea* (Dum. & Couts) Rudd.

cliftoni Knull 1941d:382, plate 1, fig. 5 (♂ genitalia).
Type locality: OH, Clifton – Type depository: FMNH (♂).
Taxonomy: Knull 1944a; MacRae 2003.
Redescription: Nelson 1980a:82 (♀).
Ecology: Nelson & Westcott 1976; Nelson, *et al*. 1981; Nelson 1987a; MacRae 1991 (biol.); Westcott 1991 (distr.); MacRae & Nelson 2003; MacRae 2006 (biol., distr.).
Distribution: **USA**: AR, GA, IN, MI, MO, NC, NY; OH, OK, TN, TX
Host(s): larvae in *Juglans nigra* L.; adults also on *Carya cordiformis* (Wangenh.) K. Koch, *Cercis canadensis* L., *Cornus* sp. and *Platanus occidentalis* L.

cochisei Knull 1948:72 (♂, ♀), figs. 1, 2 (♂ genitalia).
Type locality: AZ, Dragoon Mtns. – Type depository: FMNH (♂).
Taxonomy: Knull 1948.
Ecology: Westcott, *et al.* 1990; Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): unknown.
concinnus Horn 1891d:310.
Type locality: FL – Type depository: MCZC (Type series contains both ♂ and ♀; no lectotype has been designated).
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Fisher 1928a:171 (♂, ♀), fig. 38 (♂ genitalia).
Ecology: Fisher 1928a; Nelson, *et al.* 1981; Nelson 1987a; Nelson & MacRae 1990 (distr.); MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AR, FL, GA, IL, KS, MD, MO, MS, TX
Host(s): larvae in *Hibiscus laevis* All.; adults also on *H. lasiocarpos* Cav. and "huckleberry".
coryli Horn 1891 [syn. of *corylicola*]
corylicola Fisher 1928a:71 (♂, ♀) (replacement name for *coryli* Horn 1891).
synonym: *coryli* Horn 1891b:297 (as variety of *arcuatus*, preoccupied: *coryli* Ratzeburg 1837).
Type locality: MA, Dracut – Type depository: MCZC 33832 (♂) (Lectotype designation: Fisher 1928a:71).
Taxonomy: Fisher 1928a (as subspecies of *arcuatus*); Nelson & Hespenheide 1998.
Redescription: Fisher 1928a:71 (♂, ♀).
Ecology: Fisher 1928a (biol., distr.); Nelson & Westcott 1976; Nelson, *et al.* 1981 (distr.).
Distribution: **USA**: CT, IA, IL, IN, MA, MD, ME, MO, NH, NJ, NY, PA, RI
Host(s): adults on *Corylus americana* Walt.
costipennis Fisher 1928 [syn. of *fisherellus*]
couesii LeConte 1866 [syn. of *aureus*]
coxalis Waterhouse 1889:89.
Type locality: Mexico: Juquila. Type depository: BMNH (♀) (Lectotype designation: Hespenheide 1979a:106).
synonym: *auroguttatus* Schaeffer 1905b:149 – Synonymy: Hespenheide 1979a:106.
Type locality: AZ, Huachuca Mtns., Palmerlee – Type depository: USNM 42646 (♂) (Lectotype designation: Bellamy & Nelson 1990:290).
synonym: *socus* Obenberger 1935:118 – Synonymy: Hespenheide 1979a:106.
Type locality: Mexico. Type depository: NMPC 24562
Taxonomy: Fisher 1928a (as *auroguttatus*); Hespenheide 1979.
Redescription: Fisher 1928a:135 (♂ & ♀ as *auroguttatus*).
Ecology: Fisher 1928a (distr. & biol. as *auroguttatus*); Westcott, *et al.* 1990 (distr.); Westcott 2005 (distr.).
Distribution: **USA**: AZ, CA; also recorded from Mexico.
Host(s): adults on *Quercus hypoleucoides* Camus and "black oak".
crataegi Frost 1912:247.
Type locality: PA, Harrisburg – Type depository: MCZC 35039 (♂).
misidentification: *politus* of authors, not *politus* Say 1825.
Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:227 (♂, ♀), fig. 55 (♂ genitalia).
Ecology: Fisher 1928a; Nelson & Westcott 1976; Nelson, *et al.* 1981; Nelson 1987a; Nelson & MacRae 1990; Davies 1991; MacRae 1991; Solomon 1995 (biol., distr.); Nelson, *et al.* 1996 (distr.); Westcott 2005.
Distribution: **Canada**: AB, PQ; **USA**: AL, AR, FL, IA, IL, IN, KS, MI, MO, NE, NY, OH, OK, PA, VA
Host(s): larvae in *Amelanchier alnifolia* (Nutt.) Nutt. and *Crataegus* sp.; adults also on *C. columbiana* Howell, *C. crus-galli* L., *C. douglasii* Lindley and *Juglans nigra* L.
criddlei Frost 1920:249.
Type locality: Canada: MB, Aweme – Type depository: MCZC 35040 (♂).
Immature stages: Wellso, *et al.* 1976: fig. 8 (willow stem gall).
Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:122 (♂, ♀), fig. 29 (♂ genitalia).
Ecology: Fisher 1928a; Wong & McLeod 1965; Wellso, *et al*. 1976; Davies 1991 (distr.); Solomon 1995 (distr., biol.).
Distribution: **Canada**: MB, ON, PQ, SK.; **USA**: MI
Host(s): larvae in *Salix bebbiana* Sarg.

crinicornis Horn 1891b:294.
Type locality: MA – Type depository: MCZC 2121 (♂) (Lectotype designation: Fisher 1928a:74).
Taxonomy: Horn 1891b; Fisher 1928a; MacRae 2003.
Redescription: Knull 1925: plate 1, fig.10 (♂ antenna); Fisher 1928a:72 (♂, ♀) fig. 14 (♂ genitalia).
Ecology: Fisher 1928a; Hespenheide 1974; Nelson & Westcott 1976; Hespenheide 1979b; Nelson, *et al*. 1981; Bright 1987; Nelson 1987a; Nelson & MacRae 1990; Davies 1991 (distr.); MacRae 1991; 2006 (biol., distr.).
Distribution: **Canada**: ON, PQ; **USA**: IL, IN, KS, MA, MD, ME, MI, MO, NH, NJ, NY, OH, PA, VA, WV
Host(s): larvae in *Diospyros virginiana* L., *Fagus grandifolia* Ehrh., *Gleditsia triacanthos* L. and *Quercus alba* L.; adults also on *Carya glabra* (Mill.) Sweet and *Juglans nigra* L.

cuneus LeConte 1866 [syn. of *lacustris*]

cupreolus LeConte 1860 [syn. of *politus*]

cupreomaculatus Dugès 1891 [syn. of *flohri*]

cupreonitens Fisher 1928a:265 (♂, ♀), fig. 68 (♂ genitalia).
Type locality: TX, Brownsville – Type depository: USNM 41013 (♂).
Taxonomy: Fisher 1928a.
Ecology: Vogt 1949b; Nelson & Westcott 1976 (biol.); Westcott, *et al*. 1990; Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: TX; also recorded from Mexico.
Host(s): adults on *Acacia farnesiana* (L.) Willd., *A. rigidula* Benth. and *Prosopis glandulosa* Torr.

cuprescens (Ménétries) 1832:154 (*Buprestis*).
Type locality: (S part of Azerbaijan, partly in Iran) "Périmbal sur les montagnes de Talyche" (Old World, accidentally introduced into No. Amer.) – Type depository: ZIN.
synonym: *aurichalceus* Redtenbacher 1849:286 – Synonymy: Jendek 2003:6.
Type locality: Austria – Type depository: NHMW.
synonym: *rubicola* Abielle 1897:15 (as variety of *chrysoderes* Abeille de Perrin) – Synonymy: Alexeev 1990:8.
Type locality: France, Hautes–Alps, Landes – Type depository: MNHN (Lectotype not designated).
misidentification: *fagi* of authors, not *fagi* Ratzeburg 1837.
misidentification: *politus* of Weiss 1914:438, not *politus* Say 1825.
misidentification: *viridis* of authors, not *viridis* Linnaeus 1758.
Taxonomy: Fisher 1928a (as *communis rubicola* Abeille de Perrin); Schaefer 1949 (as *aurichalceus rubicola* Abeille de Perrin); Alexeev 1989; 1990; Mühle, *et al*. 2000.
Redescription: Knull 1925: plate 9 (galls); Fisher 1928a:210 (♂, ♀), fig. 5 (♂ genitalia) (all as *communis rubicola* Abeille de Perrin).
Ecology: Weiss 1916b (as *viridis*); Mutchler & Weiss 1922 (biol.); Fisher 1928a (as *viridis fagi*); Homan 1975 (as *aurichalceus)*; Nelson, *et al*. 1981 (as *aurichalceus rubicola*); Bright 1987 (as *aurichalceus*); MacRae 1991(as *aurichalceus*); Solomon 1995 (as *aurichalceus*); Nelson, *et al*. (as *cupreus*); Nelson & MacRae 1990; Davies 1991; Westcott 1991 (all as *aurichalceus*); Bílý, 2002 (biol., distr.); MacRae & Nelson 2003 (distr.).
Distribution: **Canada**: NB, PQ; **USA**: CO, CT, IA, ID, IL, IN, MA, ME, MI, MN, MO, MT, ND, NE, NH, NJ, NY, OH, OR, PA, SD, UT, VT, WV; also recorded from the Old World.
Host(s): larvae in *Rosa nutkana* K. Presl. var. *hispida* Fern. and *R. woodsi* Lindl. var. *ultramontana* (S. Wats.) Jeps.; adults also on *Ribes alpinum* L., *Rosa blanda* Ait., *R. carolina* L., *R. hugonis* Hemsl., *R. multiflora* Thunb. ex Murr., *R. nitida* Willd., *R. rubrifolia* Vill., *R. rugosa* Thunb., *R. setigera* Michx.

cupricollis Gory 1841 [syn. of *ruficollis*]

cyanescens Ratzeburg 1837:61, plate 2, fig. 2 (adult).
Type locality: Germany (Old World, accidentally introduced into No. Amer.) – Type depository: DEIC.

synonym: *caeruleus* Rossi 1792:62 (*Buprestis*) (preoccupied: *caeruleus* Thunberg 1789) – Synonymy: Saunders 1871:119.
Type locality: Italy, Pisanae – Type depository: unknown.
misspelling: *coeruleus* of authors (*lapsus calami*).
synonym: *cyaneus* Lacordaire 1835:612 (preoccupied: *cyaneus* Rossi 1790) – Synonymy: Saunders 1871:119.
synonym: *amabilis* Gory & Laporte 1837:52, plate 12, fig. 67 (adult) – Synonymy: Saunders 1871:119.
Type locality: Germany, Saxe – Type depository: MNHN (♂) (Lectotype designation: Jendek 1998:317).
synonym: *sulcaticeps* Abeille de Perrin 1869:79 – Synonymy: Schaefer 1949:384.
Type locality: France, Basses Alpes – Type depository: type lost.
synonym: *virens* Schilski 1888:187 (as variety of *coeruleus*) – Synonymy: Obenberger 1936:976.
Type locality: Germany "aus Glatz und Thüringen" – Type depository: MNHG.
synonym: *fissifrons* Abeille de Perrin 1897:3 – Synonymy: Obenberger 1924:50.
Type locality: Carpathian Mtns. "Karpathes" – Type depository: MNHN.
synonym: *kyselyi* Obenberger 1924:50 (replacement name for *fissifrons* Abeille de Perrin 1869, not *fissifrons* Fairmaire 1849) – Synonymy: Richter & Alexeev 1965:301.
Immature stages: Xambeu 1893 (larva & pupa as *coeruleus*).
Taxonomy: Fisher 1928a (as *coerileus*).
Redescription: Fisher 1928a:224 (♂, ♀), fig. 54 (♂ genitalia as *coeruleus*).
Ecology: Fisher 1928a; Knull 1944a (as *coeruleus*); Nelson & Westcott 1976; Nelson, *et al.* 1981; Bright 1987; Davies 1991; Westcott 1991; Nelson, *et al.* 1996 (distr.); Bílý, 2002 (biol., distr.).
Distribution: **Canada**: ON; **USA**: CO, CT, IL, MA, MI, MO, NH, NY, OH, UT, VA, WI, WV; also widely recorded from Palaearctic region.
Host(s): larvae in *Lonicera* sp.; adults also on *Symphoricarpus orbiculatus* Moench.and *Vibernum* sp ; in Europe associated with *Alnus, Betula, Crataegus, Eryngium, Fagus, Quercus, Rosa* and *Rubus*.

cyaneus Lacordaire 1835 [syn. of *cyanescens*]

davisi Knull 1941d:385, plate 1, fig. 3 (♂ genitalia).
Type locality: TX, Davis Mtns. – Type depository: FMNH (♂).
Taxonomy: Knull 1941d.
Distribution: **USA**: TX
Host(s): unknown.

defectus LeConte 1860:244.
Type locality: PA – Type depository: MCZC 2122 (♀) (Lectotype designation: Fisher 1928a:77).
misidentification: *otiosus* of authors (in part), not *otiosus* Say 1833.
Taxonomy: Horn 1891b; Fisher 1928a; MacRae 2003.
Redescription: Knull 1925: plate 1, fig. 19 (♂ last abd. ventrite); Fisher 1928a:76 (♂, ♀), fig. 15 (♂ genitalia).
Ecology: Fisher 1928a; Hespenheide 1974; Nelson & Westcott 1976; Hespenheide 1979b; Nelson, *et al.* 1981; Bright 1987; Davies 1991 (biol.); MacRae 1991; Nelson, *et al.* 1996; MacRae 2006 (biol., distr.).
Distribution: **Canada**: PQ; **USA**: AL, AR, CT, GA, IA, IL, IN, KS, MA, MD, MI, MO, MS, NC, ND, NJ, NY, OH, OK, PA, TX, VA, WV
Host(s): larvae in *Quercus alba* L., *Q. muehlenbergii* Englem. and *Q. stellata* Wangenh.; adults also on *Aesculus glabra* Willd., *Carya ovata* (Mill.) K. Koch, *C. tomentosa* Nutt., *Celtis occidentalis* L., *Cercis canadensis* L., *Crataegus* sp., *Gymnocladus dioicus* (L.) K. Koch, *Quercus macrocarpa* Michx., *Q. marilandica* (L.) Muenchh. and *Q. velutina* Lam.

delicatulus Waterhouse 1889:191.
Type locality: Mexico: Guerrero, Chilpancingo 4600' – Type depository: BMNH (Lectotype designation: Hespenheide 1974a:49).
synonym: *apachei* Knull 1938c:139 (♂, ♀), fig. 2 (♂ genitalia) – Synonymy: Hespenheide 1974a:49.
Type locality: AZ Santa Cruz River Bend – Type depository: FMNH (♂).
synonym: *mixcoati* Fisher 1938:135 – Synonymy: Hespenheide 1974a:49.
Type locality: Mexico: Morelos, Cuernavaca – Type depository: USNM 51564 (♂).
Taxonomy: Hespenheide 1974a.
Redescription: Knull 1938c:139 (♂, ♀), fig. 2 (♂ genitalia) (as *apachei*); Fisher 1938:135 (♂).

Ecology: Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): unknown.

desertus LeConte 1860 [syn. of *politus*]

difficilis Gory 1841:224, plate 37, fig. 215 (adult).
Type locality: "Amer. Bor." – Type depository: MNHN (Lectotype not designated).
synonym: *occidentalis* Uhler 1855:416 – Synonymy: LeConte 1860:244.
Type locality: IN, Evansville – Type depository: MCZC 25970.
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Fisher 1928a:39 (♂, ♀), fig. 7 (♂ genitalia).
Ecology: Fisher 1928a; Wray 1967; Hespenheide 1974; Nelson, *et al.* 1981; Westcott 1991 (distr.); Solomon 1995 (biol., distr.); Westcott 2005 (distr.).
Distribution: **USA**: AL, AR, CO, GA, IA, IL, IN, KS, KY, LA, MI, MO, NC, NE, NJ, NM, OH, OK, SC, SD, TN, TX, UT
Host(s): larvae *Gleditsia triacanthos* L.

diospyroides Knull 1942:390, figs. 7, 8 (♂ genitalia).
Type locality: TN, Great Smoky Mtns. National Park – Type depository: FMNH (♂).
Taxonomy: Knull 1942; MacRae 2003.
Redescription: Nelson, *et al.* 1996:184 (♀).
Ecology: Hespenheide 1974 (biol., distr.); Nelson & Westcott 1976; Nelson, *et al.* 1981; Nelson & MacRae 1990; Wellso & Jackman 2006 (distr.).
Distribution: **USA**: IN, KS, MD, MO, NC, NJ, TN
Host(s): larvae in *Diospyros virginiana* L.

dolli Schaeffer 1904:210.
Type locality: TX, Brownsville, Esperanza Ranch – Type depository: USNM 42641 (♂) (Lectotype designation: Bellamy & Nelson 1990:290).
Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:289 (♂, ♀), fig. 77 (♂ genitalia).
Ecology: Fisher 1928a (biol., distr.); MacRae & Nelson 2003 (biol.); Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: TX; also recorded from Mexico.
Host(s): larvae in *Diospyros texana* Scheele.

dozieri Fisher 1918:67 (♂, ♀).
Type locality: FL, Gainesville – Type depository: USNM 21708 (♂).
Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:207 (♂, ♀), fig. 50 (♂ genitalia).
Ecology: Fisher 1928a (biol., distr.); Nelson & MacRae 1990 (distr.).
Distribution: **USA**: FL, GA
Host(s): adults on *Ostrya virginiana* (Mill.) K. Koch.

duncani Knull 1929:270.
Type locality: AZ, Sierra Ancha Mtns. – Type depository: FMNH (♂).
synonym: *nodicornis* Fall 1932:82 – Synonymy: Nelson & Westcott 1976:279.
Type locality: AZ, Tucson – Type depository: MCZC 24449 (♂).
Taxonomy: Knull 1970; Nelson & Westcott 1976.
Redescription: Nelson 1980a:82 (♀).
Ecology: Nelson 1965 (biol., distr.); Knull 1970 (biol.); Nelson 1987a (distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): adults on *Baccharis* sp. and *Chrysothamnus nauseosus* (Pall.) Britt.

egeniformis Champlain & Knull 1923a:84 (♂, ♀), fig. 3 (♂ genitalia).
Type locality: MO – Type depository: FMNH (♂).
misidentification: *addendus* of authors, not *addendus* Crotch 1873.
misidentification: *impexus* of authors, not *impexus* Horn 1891.
Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:287 (♂, ♀), fig. 76 (♂ genitalia).
Ecology: Fisher 1928a; Nelson & Westcott 1976; Manley 1977; Nelson, *et al.* 1981; MacRae 1991 (biol.); MacRae & Nelson 2003 (distr.); MacRae 2006 (biol., distr.).

Distribution: **USA**: AR, IA, IL, KS, MI, MO, NE, NM, OH, OK, PA, SC, SD, TN, TX
Host(s): larvae in *Gleditsia triacanthos* L. and *Sapindus saponaria L.* var. *drummondii* (H. & A.) L. Benson; adults also on *Celtis occidentalis* L. and *Robinia pseudoacacia* L.

egenus Gory 1841:258, plate 43, fig.251 (adult).
Type locality: "Amer. Bor." – Type depository: MNHN (Lectotype not designated).
misidentification: *otiosus* of authors (in part), not *otiosus* Say 1833.
misidentification: *politus* of authors (in part), not *politus* Say 1825.
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Knull 1925: plate 1, fig. 11 (♂ antenna); Fisher 1928a:326 (♂, ♀), fig. 90 (♂ genitalia).
Ecology: Fisher 1928a (biol., distr.); Nelson, *et al.* 1981; Nelson & MacRae 1990; Nelson, *et al.* 1996 (distr.).
Distribution: **Canada**: ON, PQ; **USA**: AL, AR, AZ, CO, CT, DC, GA, IA, IL, IN, KS, KY, LA, MA, MD, MI, MO, MS, NC, NE, NH, NJ, NM, NY, OH, OK, PA, SC, SD, TN, TX, VA, WI, WV
Host(s): larvae in *Robinia neomexicana* Gray and *R. pseudoacacia* L.

eleanorae Fisher 1928a:320, fig. 88 (♂ genitalia).
Type locality: TX, Devil's River – Type depository: USNM 41016 (♂).
Taxonomy: Fisher 1928a.
Redescription: Nelson, *et al.* 1996:184 (♀).
Ecology: Fisher 1928a (biol., distr.); Vogt 1949b (biol.); Nelson & MacRae 1990; Westcott, *et al.* 1990; Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ, TX; also recorded from Mexico.
Host(s): adults on *Acacia berlandieri* Benth., *A. rigidula* Benth. and *Ebenopsis* sp.

esperanzae Knull 1935a:96.
Type locality: TX, Brownsville – Type depository: FMNH (♀).
Taxonomy: Knull 1935a.
Redescription: Manley 1977:79 (♂), fig. 1 (♂ genitalia).
Ecology: Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: TX; also recorded from Mexico.
Host(s): unknown.

exhuachucae Knull 1937 [syn. of *asperulus*]

exiguellus Fisher 1928a:277 (♂, ♀), fig. 72 (♂ genitalia).
Type locality: TX – Type depository: USNM 41011 (♂).
Taxonomy: Fisher 1928a.
Ecology: Fisher 1928a (distr.); Manley 1977 (biol.).
Distribution: **USA**: KS, TX
Host(s): adults on *Quercus* sp.

exsapindi Vogt 1949a:49 (♂, ♀), fig. 7 (♂ genitalia).
Type locality: TX, SW Hidalgo Co., 1 mi S Granjeno – Type depository: USNM 58837 (♂).
Taxonomy: Vogt 1949a.
Ecology: Manley 1976a (biol.).
Distribution: **USA**: TX
Host(s): larvae in *Sapindus saponaria* L. var. *drummondii* (H. & A.) L. Benson.

fallax Say 1833:66.
Type locality: IN – Type depository: USNM (♂) (original type destroyed; Neotype, from MO: Cliff Cave, designation: Fisher 1928a:195).
synonym: *zemes* Gory 1841:234, plate 39, fig.225 (adult) – Synonymy: Horn 1891b:335.
Type locality: AL – Type depository: MNHN.
synonym: *impressipennis* Uhler 1855:416 – Synonymy: LeConte 1860:246.
Type locality: MD, Baltimore – Type depository: type lost.
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Horn 1891b: plate 8, fig. 8 (elytra); Knull 1925: plate 1, fig. 26 (prosternal lobe); Fisher 1928a:194 (♂, ♀), fig. 45 (♂ genitalia).
Ecology: Fisher 1928a; Hespenheide 1974 (biol.); Nelson & Westcott 1976; Nelson, *et al.* 1981; Nelson, *et al.* 1996 (distr.); Nelson 1997a; MacRae 2006 (biol., distr.);
Distribution: **USA**: AL, AR, CO, CT, DC, DE, FL, GA, IA, IL, IN, KS, KY, LA, MD, MI, MO, MS,

NC, NE, NJ, NM, NY, OH, OK, PA, SC, TN, TX, VA, WV
Host(s): larvae in *Acer saccharum* Marsh.(?), *Celtis laevigata* Willd., *C. occidentalis* L., *C. tenuifolia* Nutt., *Cornus florida* L. and *Gleditsia triacanthos* L.; adults also on *Crataegus viridis* L., *Diospyros virginiana* L., *Juglans nigra* L. and *Tilia* sp.

falli Fisher 1928a:249 (♂, ♀), fig. 63 (♂ genitalia).
Type locality: AZ, Santa Cruz Co., Nogales – Type depository: MCZC 22551 (♂).
Taxonomy: Fisher 1928a.
Ecology: Fisher 1928a; Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ, TX; also recorded from Mexico.
Host(s): unknown.

feretrius Obenberger 1936 [syn. of *planipennis*]

felix Horn 1891b:326.
Type locality: AZ, probably near Tucson – Type depository: MCZC 33829 (♀) (Lectotype designation: Fisher 1928a:257).
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Fisher 1928a:255 (♂, ♀), fig. 65 (♂ genitalia).
Ecology: Fisher 1928a; Vogt 1949b (biol.); Cazier 1951b; Barr 1969a; Nelson, *et al*. 1981 (biol., distr.); Westcott 2005 (distr.); Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ, CA, CO, ID, NM, NV, TX, UT; also recorded from Mexico.
Host(s): larvae in *Atriplex confertifolia* (Torr. & Frem.) S. Wats., *Cercidium microphyllum* (Torr.) Rose & Johnston and *Grayia spinosa* (Hook.) Moq.; adults also on *Prosopis glandulosa* Torr., *Psorothamnus emoryi* (Gray) Rydb., *Sphaeralcea ambigua* Gray and *S. rusbyi* Gray var. *eremicola* (Jeps.) Kearn.

ferrisi Dury 1908:368.
Type locality: OH, Cincinnati – Type depository: USNM 28514 (♂) (Lectotype designation: Bellamy & Nelson 1990:290).
Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:18 (♂, ♀), fig. 1 (♂ genitalia).
Ecology: Fisher 1928a; Nelson & Westcott 1976; Nelson, *et al*. 1981; Nelson 1987a (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: IA, IL, IN, KY, MI, MO, MS, OH, TN, TX, WI
Host(s): larvae in *Acer saccharum* Marsh.(?), *Celtis occidentalis* L. and *C. tenuifolia* Nutt.

fisherellus Obenberger 1936a:92 (replacement name for *costipennis* Fisher 1928).
synonym: *costipennis* Fisher 1928a:182, fig. 41 (♂ genitalia) (preoccupied: *costipennis* Kerremans 1899).
Type locality: CA, Pasadena – Type depository: USNM 40999 (♂).
synonym: *tarahumarae* Cazier 1951b:32, fig. 42 (♂ genitalia) – Synonymy: Nelson 1980:82.
Type locality: Mexico: Chihuahua, 80 km N Chihuahua City – Type depository: AMNH (♂).
Taxonomy: Fisher 1928a (as *costipennis*); Nelson 1980a.
Redescription: Fisher 1928a: fig. 41 (♂ genitalia); Knull 1944a:78 (♀) (all as *costipennis*).
Ecology: Knull 1944a; Wellso 1974; Nelson 1980a; Bellamy 1982 (distr., biol.).
Distribution: **USA**: AZ, CA, TX; also recorded from Mexico.
Host(s): adults on *Acacia greggii* Gray, *Baccharis sergiloides* Gray, *Celtis ehrenbergiana* (Klot.) Liebm., *C laevigata* Willd., *C. l. reticulata* (Torr.) L. Benson, *Hymenoclea salsola* Gray, *Prosopis glandulosa* Torr. var. *torreyana* (L. Benson) Johnston, *Quercus hypoleucoides* Camus and *Stillingia* sp.

fisheri Knull 1929 [syn. of *fisherianus*]

fisherianus Knull 1930a:3 (replacement name for *fisheri* Knull 1929).
synonym: *fisheri* Knull 1929:271 (preoccupied: *fisheri* Obenberger 1924).
Type locality: AZ, Phoenix – Type depository: FMNH (♀).
Taxonomy: Knull 1929 (as *fisheri*).
Redescription: Knull 1944a: plate 2, fig. 7 (♂ genitalia).
Ecology: Nelson & Westcott 1976 (biol., distr.); Nelson, *et al*. 1981; MacRae & Nelson 2003 (biol.).
Distribution: AZ, CA, NM
Host(s): Larvae in *Salix gooddingii* Ball.

fissifrons Abeille de Perrin 1897 [syn. of *cyanescens*]

flavolineatus Mannerheim 1837 [syn. of *bilineatus*]

flohri (Waterhouse) 1890a:219 (*Trypantius*).
Type locality: Mexico: Navarrete – Type depository: BMNH.
synonym: *cupreomaculatus* Dugès 1891:30 – Synonymy: Hespenheide 1974a:50.
Type locality: Mexico: Tupátaro – Type depository: unknown.
synonym: *opacus* Kerremans 1897:85 – Synonymy: Hespenheide 1974a:50.
Type locality: Mexico – Type depository: BMNH.
Taxonomy: Waterhouse 1890; Hespenheide 1974a.
Redescription: Fisher 1928a:44 (♀ as *cupreomaculatus*).
Ecology: Fisher 1928a; Westcott & Hespenheide 2006 (distr. as *cupreomaculatus*).
Distribution: **USA**: AZ, also recorded from Mexico.
Host(s): unknown.
floridanus Crotch 1873:94.
Type locality: FL – Type depository: ANSP 2712 (♂).
synonym: *parafloridanus* Knull 1929:272 – Synonymy: Knull 1970:263.
Type locality: FL, Apopka – Type depository: FMNH (♀).
Taxonomy: Horn 1891b; Fisher 1928a; Knull 1970.
Redescription: Fisher 1928a:260 (♂, ♀).
Ecology: Fisher 1928a (biol., distr.); Nelson, *et al*. 1981 (biol.).
Distribution: **USA**: FL, GA
Host(s): adults on "huckleberry", *Opuntia* sp. and *Quercus* sp.
frenatus Gory 1841 [syn. of *vittaticollis*]
frisoni Fisher 1943 [syn. of *addendus*]
frosti Knull 1920:8 (♂, ♀).
Type locality: MA, Framingham – Type depository: FMNH (♂).
misidentification: *otiosus* of authors (in part), not *otiosus* Say 1833.
Taxonomy: Fisher 1928a; MacRae 2003.
Redescription: Fisher 1928a:91 (♂, ♀), fig. 20 (♂ genitalia).
Ecology: Fisher 1928a (biol., distr.); Nelson & Westcott 1976; MacRae 1991 (biol.); MacRae & Nelson 2003 (distr.).
Distribution: **Canada**: MB; **USA**: CT, IA, IL, MA, MI, MO, NC, NY, PA; also recorded from Mexico.
Host(s): larvae in *Quercus* sp.; adults also on *Q. stellata* Wangenh.
fulgens LeConte 1860:243.
Type locality: MO – Type depository: MCZC 2124 (♂) (Type is No. 7 in *arcuatus* series according to Fisher 1928a:69).
Taxonomy: LeConte 1860; Fisher 1928a (as subspecies of *arcuatus*); Nelson & Hespenheide 1998 (as full species).
Redescription: Fisher 1928a:68 (♂, ♀).
Ecology: Fisher 1928a (biol., distr.); Nelson & MacRae 1990; MacRae & Nelson 2003 (distr.).
Distribution: **Canada**: ON; **USA**: AR, IA, IL, IN, KS, MI, MN, MO, NE, OH, VA, WV
Host(s): larvae in *Corylus americana* Walt.
fulminans Fisher 1928 [ssp. of *quadriguttatus*]
funestus Gory 1841:221 (plate 36, fig. 212).
Type locality: "Mexique" – Type depository: MNHN.
Taxonomy: Gory 1841; Hespenheide 2007.
Redescription: Hespenheide 2007 (diagnosis), fig. 4 (dorsal & lateral habitus), fig. 5 (♂ genitalia).
Ecology: Hespenheide 2007 (distr.).
Distribution: **USA**: TX; also recorded from Mexico and Central America.
Host(s): unknown.
fuscipennis Gory 1841:238, plate 39, fig. 230 (adult).
Type locality: "Amer. Bor." – Type depository: MNHN (type series contains both ♂ & ♀, lectotype not designated).
Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:46 (♂, ♀), fig. 9 (♂ genitalia).
Ecology: Fisher 1928a; Knull 1944a; Nelson & Westcott 1976 (distr.); Solomon 1995 (biol., distr.).
Distribution: **USA**: FL, GA, KY, MO, MS, NC, OH, SC, TN, TX
Host(s): larva in *Diospyros virginiana* L.; adults also on *Oxydendrum arboreum* (L.) DC.

geminatus (Say) 1823:163 (*Buprestis*).
Type locality: MO – Type depository: USNM (♂) (original type destroyed; Neotype, from central MO, designation: Fisher 1928a:80).
Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:79 (♂, ♀), fig. 16 (♂ genitalia).
Ecology: Fisher 1928a; Hespenheide 1974; Nelson & Westcott 1976; Nelson, *et al.* 1981; Bright 1987; Nelson 1987a; Davies 1991; Nelson, *et al.* 1996 (distr.); MacRae & Nelson 2003; MacRae 2006 (biol., distr.).
Distribution: **Canada**: ON, PQ; **USA**: AR, FL, GA, IL, IN, LA, MA, MI, MN, MO, MS, NC, NH, NJ, OK, PA, SC, TX, VA, WI, WV
Host(s): larvae in *Quercus phellos* L. and *Q. velutina* Lam.; adults also on *Carya alba* (L.) Nutt., *C. tomentosa* Nutt., *Gymnocladus dioicus* (L.) K. Koch., *Juglans nigra* L., *Quercus alba* L. and *Q. coccinea* Muenchh.

geronimoi Knull 1950:90.
Type locality: AZ, Chiricahua Mtns., 4000' – Type depository: FMNH (♀).
Taxonomy: Knull 1950; Nelson 1985a.
Redescription: Nelson 1987b:67 (♂), fig. 7 (♂ genitalia).
Ecology: Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): unknown.

gibbicollis Fall 1901:241.
Type locality: CA, near San Bernardino – Type depository: MCZC 24446.
synonym: *mercurius* Wickham 1903:70 – Synonymy: Fisher 1928a:234.
Type locality: NM, Deming – Type depository: USNM 51936 (♂).
Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:234 (♂, ♀), fig. 58 (♂ genitalia).
Ecology: Fisher 1928a; Nelson & Westcott 1976; Nelson, *et al.* 1981; Nelson & MacRae 1990; Westcott 1991; MacRae & Nelson 2003; MacRae 2006; Westcott & Hespenheide 2006 (biol., distr.).
Distribution: **USA**: AZ, CA, CO, KS, MT, NM, NV, OK, TX, UT, WY; also recorded from Mexico.
Host(s): adults on *Gutierrezia californica* (DC.) T. & G., *Prosopis glandulosa* Torr. and *Quercus* sp.

gillespiensis Knull 1947a:70 (♂, ♀), figs. 6, 7 (♂ genitalia).
Type locality: TX, Gillespie Co. – Type depository: FMNH (♂).
Taxonomy: Knull 1947a.
Ecology: Manley 1977 (biol.).
Distribution: **USA**: TX
Host(s): adults on *Celtis* sp.

granulatus granulatus (Say) 1823:162 (*Buprestis*).
Type locality: MO – Type depository: USNM (♀) (original type destroyed, Neotype, from Riley Co., KS, designation: Fisher 1928a:140).
Taxonomy: Horn 1891b; Fisher 1928a; Carlson & Knight 1969.
Redescription: Fisher 1928a:138 (♂, ♀).
Ecology: Fisher 1928a; Nelson & Westcott 1976; Nelson, *et al.* 1981; Nelson & MacRae 1990 (distr.); Solomon 1995 (biol., distr.); Westcott 2005 (distr.).
Distribution: **USA**: AL, AZ, CA, CO, IL, KS, MI, MN, MO, MS, MT, NM, NY, OK, PA, SD, UT, WY
Host(s): larvae in *Betula* sp., *Populus deltoides* Marsh., *P. deltoides* ssp. *monilifera* (Ait.) Eckenwalder and *P. nigra* L.

granulatus liragus Barter & Brown 1949:247 (♂, ♀), fig. 1a (♂ genitalia) (as species).
Type locality: Canada: NB, Fredericton – Type depository: CNCI 5803 (♂).
Taxonomy: Barter & Brown 1949; Carlson 1969; Carlson & Knight 1969 (ssp. of *granulatus*).
Redescription: Carlson & Knight 1969: figs. 2, 4A, 6, 39 (♀ pygidium, elytra, ♂ genitalia, ♂ & ♀ en copula).
Ecology: Barter 1965 (biol. & parasitoids); Nelson & Westcott 1976; Nelson 1987a; Dearborn & Donahue 1993 (distr.); Solomon 1995 (biol.).
Distribution: **Canada**: AB, BC, MB, NB, PQ, SK; **USA**: AZ, CA, CO, ME, MI, MN, ND, NH, NV, OR, PA, UT, WI
Host(s): larvae in *Populus tremuloides* Michx.

granulatus mojavei Knull 1952b:352, figs. 6, 7 (♂ genitalia) (as species).
Type locality: CA, San Bernardino Co., Oro Grande – Type depository: FMNH (♂).
Taxonomy: Knull 1952b; Nelson & Westcott 1976 (ssp. of *granulatus*).
Redescription: Nelson 1965:40 (♀).
Ecology: Nelson 1965 (biol.).
Distribution: **USA**: CA
Host(s): larvae in *Populus fremontii* S. Wats.
granulatus populi Fisher 1928a:150 (♂, ♀), fig. 34 (♂ genitalia) (as species).
Type locality: CA, Yreka – Type depository: USNM 40997 (♂).
misidentification: *niveiventris* of authors (in part), not *niveiventris* Horn 1891.
synonym: *trichocarpae* Chamberlin 1929:112 – Synonymy: Leng & Mutchler 1933:85.
Type locality: OR, Oakridge – Type depository: CASC 5506 (♂).
Taxonomy: Fisher 1928a; Carlson 1969; Carlson & Knight 1969 (ssp. of *granulatus*).
Ecology: Fisher 1928a (biol., distr.); Davies 1991 (distr.); Solomon 1995 (biol.).
Distribution: **Canada**: AB, BC; **USA**: CA, ID, MT, OR, WA
Host(s): larvae in *Populus nigra* L. and *P. balsamifera* L. ssp. *P. trichocarpa* (T. & G.) Brayshaw.
gravis LeConte 1860 [syn. of *anxius*]
harenus Nelson 1994:261 (♂, ♀), figs. 1, 3 (pronotum, ovipositor).
Type locality: CA, Imperial Co., 7.2 mi W Glamis, Hwy. 78 – Type depository: CASC 17248 (♂).
misidentification: *lacustris* of authors (in part), not *lacustris* LeConte 1860.
Taxonomy: Nelson 1994.
Ecology: Nelson 1994 (biol., distr.).
Distribution: **USA**: CA
Host(s): adults on *Croton wigginsii* Wheeler.
hazardi Knull 1966b:239, figs. 3, 4 (♂ genitalia).
Type locality: GA, Gilmer Co. – Type depository: FMNH (♂).
Taxonomy: Knull 1966b; MacRae 2003.
Ecology: Knull 1966b (distr.).
Distribution: **USA**: GA
Host(s): unknown.
heterothecae Knull 1972a:299 (♂, ♀), figs. 1, 2 (♂ genitalia).
Type locality: AZ, Chiricahua Mtns., near Portal – Type depository: FMNH (♂).
misidentification: *huachucae* of authors, not *huachucae* Schaeffer 1905.
Taxonomy: Knull 1972b.
Ecology: Nelson 1965 (as *huachucae*); Knull 1972b (biol.); Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): adults on *Heterotheca* sp.
horni Kerremans 1900:341 (replacement name for *blanchardi* Horn 1891).
synonym: *blanchardi* Horn 1891b:305 (preoccupied: *blanchardi* Saunders 1871).
Type locality: MA – Type depository: MCZC 2130 (♂).
Immature stages: Nord, *et al.* 1965.
Taxonomy: Horn 1891b (as *blanchardi*); Carlson & Knight 1969.
Redescription: Fisher 1928a:158 (♂); Carlson & Knight 1969: figs. 1, 7, 9 (ventral abd., ♂ genitalia, adult ♂); Nelson, *et al.* 1996:185 (♀).
Ecology: Carlson & Knight 1969; Nelson, *et al.* 1981; Davies 1991 (distr.); Solomon 1995 (biol.).
Distribution: **Canada**; MB, PQ; **USA**: MA, MI, WI
Host(s): larvae in *Populus tremuloides* Michx.
howdeni Knull 1957:234 (♂, ♀), figs. 1, 2 (♂ genitalia).
Type locality: AZ, Chiricahua Mts., SW. Research Station of AMNH – Type depository: FMNH (♂).
Taxonomy: Knull 1957; Nelson, *et al.* 1996.
Ecology: Knull 1957 (biol., distr.); Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): adults on *Platanus wrightii* S. Wats.
huachucae Schaeffer 1905b:150.
Type locality: AZ, Huachuca Mtns., Ramsey Cyn. – Type depository: USNM (♂) (Lectotype designation: Bellamy & Nelson 1990:291).

Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:186 (♂, ♀), fig. 43 (♂ genitalia).
Ecology: Fisher 1928a (biol., distr.); Cazier 1951b; Nelson & Westcott 1976; Nelson, *et al.* 1981; Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ, NM; also recorded from Mexico.
Host(s): adults on *Brickellia californica* (T. & G.) Gray and *Quercus* sp.

hualpaii Knull 1939:30.
Type locality: AZ, Hualapai Mtns. – Type depository: FMNH (♂).
Taxonomy: Knull 1939.
Ecology: Knull 1939 (distr.); MacRae 2006 (biol., distr..
Distribution: **USA**: AZ, CA
Host(s): adults on *Acacia greggii* Gray.

hyperici Creutzer 1799:122, plate 3, fig. 26 (adult).
Type locality: Austriae (Old World) (introduced into No. Amer. for biological control of *Hypericum perforatum* L., St. John's Wort) – Type depository: unknown.
Synonymy: currently seven junior synonyms and several unavailable infrasubspecific names from Palaearctic fauna.
Taxonomy: Schaefer 1949.
Ecology: Harris, *et al.* 1969; Bílý, 2002 (biol., distr.).
Distribution: **Canada**: BC; **USA**: CA, ID, MT, OR,WA; also recorded from the Palaeartic region.
Host(s): larvae in *Hypericum perforatum* L.

illectus Fall 1901:242.
Type locality: CA, Pomona – Type depository: MCZC 24447 (♂).
misidentification: *jacobinus* of authors (in part), not *jacobinus* Horn 1891.
Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:251 (♂, ♀), fig. 64 (♂ genitalia).
Ecology: Fisher 1928a; Nelson 1962; Nelson & Westcott 1976; Westcott 2001b (distr.); 2005 (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, CA, NV, OR
Host(s): adults on *Atriplex confertifolia* (Torr. & Frem.) S. Wats., *Eriogonum umbellatum* Torr. var. *dichrocephalum* Gand., *Lotus nevadensis* (S. Wats.) Greene, *L. purshianus* (Benth.) Clem. & Clem., *L. rigidus* (Benth.) Greene, *L. scoparius* (Nutt.) Ottley and *Prosopis glandulosa* Torr.

imbellis Crotch 1873:94.
Type locality: FL – Type depository: ANSP 2713 (♂).
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Fisher 1928a:308 (♂, ♀), fig. 84 (♂ genitalia).
Ecology: Fisher 1928a; Nelson & Westcott 1976; Nelson, *et al.* 1981; Bright 1987; Nelson 1987a; Nelson & MacRae 1990; Davies 1991; MacRae 1991 (biol., distr.); Westcott 2001b (distr.); 2005 (distr.).
Distribution: **Canada**: ON; **USA**: AL, CT, DC, FL, GA, LA, MA, MD, MI, MN, MS, NH, NJ, NY, OK, PA, SC, TX, VA, WI
Host(s): adults on *Bigelowia nudata* (Michx.) DC., *Helianthemum canadense* (L.) Michx., *H. rosmarinifolium* Pursh and *Rudbeckia* sp.

impexus Horn 1891b:327.
Type locality: NE – Type depository: MCZC 33830 (♀) (Lectotype designation: Fisher 1928a:264).
Taxonomy: Horn 1891b; Fisher 1928a; Hespenheide 2007.
Redescription: Fisher 1928a:262 (♂, ♀), fig. 67 (♂ genitalia).
Ecology: Hespenheide 2007 (biol., distr.).
Distribution: **USA**: AR, CO, IA, KS, MN, MO, MS, NE, NM, OK, WY
Host(s): adults have been collected on *Chrysothamnus* sp.

impressiceps Pic 1918 [syn. of *ruficollis*]

impressipennis Uhler 1855 [syn. of *fallax*]

interruptus LeConte 1860 [syn. of *obsoletoguttatus*]

jacobinus Horn 1891b:314.
Type locality: CA, San Diego – Type depository: MCZC 2134 (♂) (Lectotype designation: Fisher 1928a:260).
Taxonomy: Horn 1891b; Fisher 1928a.

Redescription: Fisher 1928a:258 (♂, ♀), fig. 66 (♂ genitalia).
Ecology: Fisher 1928a; Cazier 1951b (distr.).
Distribution: **USA**: CA; also recorded from Mexico.
Host(s): unknown.

juglandis Knull 1920:7 (♂, ♀).
Type locality: PA, Hummelstown – Type depository: FMNH (♂).
Taxonomy: Fisher 1928a; MacRae 2003.
Redescription: Fisher 1928a:94 (♂, ♀), fig. 21 (♂ genitalia).
Ecology: Fisher 1928a; Nelson & Westcott 1976; Nelson, *et al.* 1981; Bright 1987; Nelson 1987a; Davies 1991 (distr.); Solomon 1995 (biol.); MacRae 2006 (biol., distr.).
Distribution: **Canada**: ON, PQ; **USA**: AR, CT, IA, IL, MD, MI, MO, NH, NY, PA, VA
Host(s): larvae in *Juglans cinerea* L.; adults also on *J. nigra* L.

knausi Schaeffer 1909 [syn. of *obolinus*]

kyselyi Obenberger 1924 [syn. of *cyanescens*]

lacustris LeConte 1860:250.
Type locality: WI, Lake Superior at LaPointe – Type depository: MCZC 2246 (♀).
synonym: *cuneus* LeConte 1866:384 – Synonymy: Horn 1891b:336.
Type locality: TX – Type depository: MCZC.
synonym: *pubiventris* Crotch 1873:95 – Synonymy: Horn 1891b:336.
Type locality: TX – Type depository: MCZC 2247 (Lectotype not designated).
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Fisher 1928a:305 (♂, ♀), fig. 83 (♂ genit).
Ecology: Fisher 1928a; Vogt 1949b; Cazier 1951b; Nelson & Westcott 1976; Bellamy 1982; Bright 1987 (biol., distr.); Davies 1991; MacRae & Nelson 2003 (biol.); Westcott & Hespenheide 2006 (distr.).
Distribution: **Canada**: ON; **USA**: AL, AZ, CA, CO, IL, KS, NM, OK, TX, WI; also recorded from Mexico.
Host(s): adults on *Croton pottsii* (Klot.) Muell.–Arg., *C. punctatus* Jacq. and *Solanum* sp.

latebrus Gory & Laporte 1837 [syn. of *acutipennis*]

lateralis (Say 1823) [syn. of *sayi*]

latifrons Waterhouse 1889:191.
Type locality: Mexico: Guerrero, Tepetlapa – Type depository: BMNH (Lectotype designation: Hespenheide 1974a:51).
synonym: *santaritae* Knull 1937b:39 – Synonymy: Hespenheide 1974a:51.
Type locality: AZ, Santa Rita Mtns. – Type depository: FMNH (♂).
Taxonomy: Waterhouse 1899.
Redescription: Knull 1944a: plate 2, fig. 9 (♂ genitalia as *santaritae*).
Ecology: Cazier 1951b; Knull 1970 (as *santaritae*) (biol.); Nelson, *et al.* 1981; Westcott, *et al.* 1990; Westcott 1991 (distr.).
Distribution: **USA**: AZ, NM; also recorded from Mexico.
Host(s): adults on *Desmodium batocaulon* Gray.

lautuellus Fisher 1928a:202 (♂, ♀), fig. 48 (♂ genitalia).
Type locality: TX, San Diego – Type depository: USNM 41001 (♂).
Taxonomy: Fisher 1928a.
Ecology: Fisher 1928a (distr.); Knull 1944a; MacRae & Nelson 2003 (biol.).
Distribution: **USA**: TX
Host(s): larvae in *Diospyros texana* Scheele.

lecontei celticola Fisher 1928a:294 (♂, ♀).
Type locality: TX, Brownsville – Type depository: USNM 41012 (♂).
Taxonomy: Fisher 1928a.
Ecology: Fisher 1928a; Vogt 1949b; Nelson, *et al.* 1981; Nelson 1987a; Westcott, *et al.* 1990; MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.); Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ, KS, LA, MS, NM, OK, TX; also recorded from Mexico.
Host(s): larvae in Baccharis sp., *Celtis ehrenbergiana* (Klot.) Liebm., *C. laevigata* Willd., *C. l. reticulata* (Torr.) L. Benson, *Havardia pallens* (Benth.) Britt. &. Rose and *Leucaena pulverulenta* (Schlecht.) Benth.; adults also on *Celtis ehrenbergiana* (Klot.) Liebm., *C. laevigata* Willd. var. *texana* Sarg. and *Sapindus saponaria* L. var. *drummondii* (H. & A.) L. Benson.

lecontei lecontei Saunders 1871:117 (replacement name for *subfasciatus* LeConte 1860).
synonym: *subfasciatus* LeConte 1860:245 (preoccupied: *subfasciatus* Gory 1841).
Type locality: IL – Type depository: MCZC 2244 (♂).
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Horn 1891b: plate 8, fig. 5 (elytra); Fisher 1928a:292 (♂, ♀), fig. 78 (♂ genitalia).
Ecology: Fisher 1928a; Hespenheide 1974; Nelson & Westcott 1976; Nelson, *et al*. 1981; Bright 1987 (biol., distr.); Nelson 1987a; Davies 1991; Peck & Thomas 1998 (distr.); MacRae & Nelson 2003 (biol.).
Distribution: **Canada**: ON; **USA**: AL, AR, DC, GA, IA, IL, IN, KS, KY, MD, MI, MO, NE, NJ, NY, OH, OK, PA, SC, SD, TN, VA, WI, WV
Host(s): larvae in *Celtis laevigata* Willd., *C. occidentalis* L. and *C. tenuifolia* Nutt.

limpiae Knull 1941b:283 (♂, ♀).
Type locality: TX, Davis Mtns. – Type depository: FMNH (♂).
Taxonomy: Knull 1941b.
Redescription: Knull 1944a: plate 1, fig. 5 (♂ genitalia).
Ecology: Nelson & Westcott 1976; Manley 1977 (biol.); Nelson, *et al*. 1981 (distr.); Westcott 2005 (biol.).
Distribution: **USA**: KS, OK, TX
Host(s): larvae in *Sapindus saponaria* L. var. *drummondii* (H. & A.) L. Benson; adults on *Ptelea trifoliata* L.

liragus Barter & Brown 1949 [ssp. of *granulatus*]

macer LeConte 1858:70.
Type locality: TX, Eagle Pass – Type depository: MCZC 2127 (♂).
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Fisher 1928a:98 (♂, ♀), fig. 22 (♂ genitalia).
Ecology: Fisher 1928a ; MacRae 2006 (biol., distr.); Nelson 1987a; Peck & Thomas 1998; Westcott & Hespenheide 2006 (distr.); Vogt 1949b; Wellso 1974 (biol.).
Distribution: **USA**: FL, LA, TX; also recorded from Mexico.
Host(s): larvae in *Celtis laevigata* Willd. and *C. occidentalis* L.; adults also on *C. laevigata reticulata* (Torr.) L. Benson.

malvastri Fisher 1928a:247 (♂, ♀), fig. 62 (♂ genitalia).
Type locality: KS, Meade Co. – Type depository: USNM 41005 (♂).
Taxonomy: Fisher 1928a.
Ecology: Fisher 1928a (biol., distr.); Nelson, *et al*. 1981; 1996; Westcott & Hespenheide 2006; Westcott & Hespenheide 2006 (distr.); Nelson & Westcott 1976 (biol.).
Distribution: **Canada**: AB **USA**: AZ, CA, CO, KS, MT, NM, SD, TX, UT, WY; also recorded from Mexico.
Host(s): adults on *Eriogonum fasciculatum* (Benth.) T. & G. and *Sphaeralceacoccinea* (Nutt.) Rydb.

manzanitae Chamberlin 1929 [syn. of *arbuti*]

marcopoli Obenberger 1930 [syn. of *planipennis*]

masculinus Horn 1891b:295.
Type locality: IL – Type depository: MCZC 2126 (♂) (Lectotype designation: Fisher 1928a:58).
misidentification: *otiosus* of authors (in part), not Say.
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Knull 1925: plate 1, fig. 22 (metaleg); Fisher 1928a:56 (♂, ♀), fig.11 (♂ genitalia).
Ecology: Fisher 1928a; Knull 1947b; Nelson 1965; Hespenheide 1974 (biol.); Nelson & Westcott 1976; Nelson, *et al*. 1981; Bright 1987; Davies 1991 (distr.); MacRae 1991; Solomon 1995 (biol., distr.); Nelson, *et al*. 1996.
Distribution: **Canada**: MB, ON, PQ, SK; **USA**: AL, AR, CT, DC, GA, IA, IL, IN, KS, MA, MI, MN, MO, MS, MT, ND, NE, NH, NJ, NY, OH, PA, SC, SD, TX, VA, VT, WI
Host(s): larvae in *Acer negundo* L., *A. platanoides* L., *A. rubrum* L., *A. saccharum* Marsh., *Aesculus glabra* Willd., *Cercis canadensis* L. and *Gleditsia triacanthos* L.; adults also on *Carya tomentosa* Nutt., *Gymnocladus dioicus* (L.) K. Koch, *Rhus aromatica* Ait. and *Quercus velutina* Lam.

mercurius Wickham 1903 [syn. of *gibbicollis*]

mimosae Fisher 1928a:241.
Type locality: TX, Devil's River – Type depository: USNM 41007 (♀).

Taxonomy: Fisher 1928a.
Redescription: Knull 1944a:82 (♂), plate 3, fig. 13 (♂ genitalia).
Ecology: Fisher 1928a (biol., distr.); Knull 1970; Nelson, *et al.* 1981; Westcott, *et al.* 1990 (distr.); MacRae & Nelson 2003 (biol.).
Distribution: **USA**: AZ, TX; also recorded from Mexico.
Host(s): adults on *Acacia greggii* Gray, *Calliandra humilis* Benth., *Mimosa borealis* Gray and ♂ *grahamii* Gray.

mixcoati Fisher 1938 [syn. of *delicatulus*]

mojavei Knull 1952 [ssp. of *granulatus*]

montosae Barr 2008:33 (♂, ♀), figs. 1, 4 (adult ♂, ♂ genitalia).
Type locality: Montosa Cyn., 13 km E Amado, Santa Cruz Co. Ariz. – Type depository: CASC 18345 (♂).
Taxonomy: Barr 2008.
Ecology: Barr 2008 (biol., distr.).
Distribution: **USA**: AZ
Host(s): adults on *Prosopis* sp.

muticus LeConte 1858:70.
Type locality: TX – Type depository: MCZC 2133 (♀).
Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:302 (♂, ♀), fig. 82 (♂ genitalia).
Ecology: Fisher 1928a (biol., distr.).
Distribution: **USA**: KS, OK, TX
Host(s): adults on *Callirhoe involucrata* (T. & G.) Gray.

neabditus Knull 1935b:190 (♂, ♀).
Type locality: AZ, Base of Pinal Mtns. – Type depository: FMNH (♂).
Taxonomy: Knull 1935b.
Redescription: Knull 1944a: plate 3, fig. 19 (♂ genitalia).
Distribution: **USA**: AZ
Host(s): unknown.

neoprosopidis Knull 1938a:99.
Type locality: TX, Brownsville – Type depository: FMNH (♂).
Taxonomy: Knull 1938a.
Redescription: Knull 1944a:83 (♀), plate 3, fig. 22 (♂ genitalia).
Ecology: Vogt 1949b; Manley 1977 (biol.); Westcott, *et al.* 1990; Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: TX; also recorded from Mexico.
Host(s): larvae in *Leucaena pulverulenta* (Schlecht.) Benth.

nevadensis Horn 1891b:303.
Type locality: W NV – Type depository: MCZC 33821 (♀).
Taxonomy: Horn 1891b; Fisher 1928a; Carlson & Knight 1969; Nelson 1980a.
Redescription: Fisher 1928a:20 (♀); Nelson 1980a:84 (♂), fig. 1 (♂ genitalia).
Ecology: Nelson 1980a (distr.); Westcott 1991 (biol., distr.).
Distribution: **USA**: CA, NV, OR
Host(s): larvae in *Salix lucida* Muhl. ssp. *lasiandra* (Benth.) E. Murr.

nigricans Gory 1841:257, plate 43, fig. 250 (adult).
Type locality: "Amer. Bor." – Type depository: MNHN (♂) (Lectotype designation: Nelson 1980a:85).
synonym: *auricomus* Frost 1912:250 – Synonymy: Nelson 1980a:85.
Type locality: MA, Framingham – Type depository: MCZC 32403 (♂).
Taxonomy: Fisher 1928a (as *auricomus*); Nelson 1980a.
Redescription: Fisher 1928a:130 (♂ & ♀ as *auricomus*).
Ecology: Fisher 1928a (as *auricomus*) (biol., distr.); Bright 1987; Davies 1991; MacRae 1991; Nelson, *et al.* 1996 (distr.).
Distribution: **Canada**: ON; **USA**: CT, MA, MO, NY, OK, PA
Host(s): adults on *Quercus rubra* L.

niveiventris Horn 1891 [ssp. of *quadriguttatus*]

obliquus LeConte 1860 [syn. of *arcuatus*]

oblongus Fisher 1928a:333.
Type locality: MD, Chesapeake Beach – Type depository: USNM 41017 (♂).
Taxonomy: Fisher 1928a; Manley 1977.
Redescription: Manley 1977:80 (♀).
Ecology: Nelson & Westcott 1976; Manley 1977; Hespenheide 1979b; Nelson 1987a; Westcott 1991; MacRae 1991; Nelson, *et al*. 1996; Peck & Thomas 1998; MacRae & Nelson 2003 (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AR, FL, GA, LA, MD, MO, MS, NC, TN, TX, VA
Host(s): larvae in *Vitis* sp.; adults also on *Celtis occidentalis* L.

obolinus LeConte 1860:248.
Type locality: KS – Type depository: MCZC 2132 (♀).
synonym: *knausi* Schaeffer 1909:376 – Synonyny: Fall 1910b:138.
Type locality: KS, Belvidere – Type depository: USNM 42650 (♂).
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Fisher 1928a:191 (♂, ♀), fig. 44 (♂ genitalia).
Ecology: Fisher 1928a; Knull 1944a (biol., distr.); Boldt & Robbins 1990 (biol.); Westcott, *et al*. 1990; Nelson & MacRae 1990; MacRae & Nelson 2003; Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: CO, KS, MO, TX; also recorded from Mexico.
Host(s): larvae in *Baccharis salicifolia* (Ruiz & Pavon) Pers.; adults also on *Celtis laevigata* Willd. var. *reticulata* (Torr.) Benson and *Ulmus* sp.

obscurilineatus Vogt 1949a:52 (♂, ♀), fig. 9 (♂ genitalia).
Type locality: TX, Starr Co., 6.5 mi SE Rio Grande City, hwy to Mission – Type depository: USNM 58839 (♂).
synonym: *chisosanus* Knull 1956:47 – Synonymy: Knull 1970:263.
Type locality: TX, Brewster Co., Chisos Mtns. – Type depository: FMNH (♀).
Taxonomy: Vogt 1949a; Knull 1970.
Ecology: Vogt 1949b; Westcott, *et al*. 1990; MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.); Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ, TX; also recorded from Mexico.
Host(s): adults on *Acacia greggii* Gray, *A. rigidula* Benth. and *Juniperus flaccida* Schlecht.

obsoletoguttatus Gory 1841:256, plate 43, fig. 249 (adult).
Type locality: "Amer. Bor." – Type depository: MNHN (♂) (Lectotype not designated).
synonym: *interruptus* LeConte 1860:246 – Synonymy: Horn 1891b:335.
Type locality: Southern states – Type depository: MCZC 2138.
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Horn 1891b: plate 8 (parts); Fisher 1928a:200 (♂, ♀), fig. 47 (♂ genitalia).
Ecology: Fisher 1928a; Knull 1944a; Bright 1987; Nelson & Westcott 1976; Nelson, *et al*. 1981; Davies 1991; MacRae 1991; Peck & Thomas 1998 (distr.); MacRae & Nelson 2003 (biol.); MacRae 2006 (distr., biol.).
Distribution: **Canada**: ON, PQ; **USA**: AL, AR, CO, CT, DC, FL, GA, IA, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, NC, NE, NH, NJ, NM, NY, OH, OK, PA, SC, SD, TX, VA, WI, WV
Host(s): larvae in *Aesculus glabra* Willd., *A. pavia* L., *Betula lenta* L., *Carpinus caroliniana* Walt., *Carya* sp., *Fagus sylvatica* L., *Gleditsia triacanthos* L., *Ostrya virginiana* (Mill.) K. Koch, *Quercus prinoides* Willd. and *Q. rubra* L.; adults also on a wide variety of trees.

obtusus Horn 1891b:288.
Type locality: TX, probably near lower Rio Grande – Type depository: MCZC 33816 (♂) (Lectotype designation: Fisher 1928a:39).
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Fisher 1928a:37 (♂), fig. 6 (♂ genitalia); Nelson 1967a:26 (♀).
Ecology: Manley 1977; Nelson, *et al*. 1981 (biol.); Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: NM, TX; also recorded from Mexico.
Host(s): larvae in *Senna lindheimeriana* (Scheele) Irwin & Barneby; adults also on *S. roemeriana* (Scheele) Irwin & Barneby.

occidentalis Uhler 1855 [syn. of *difficilis*]

ohioensis Knull 1951:89, figs. 8, 9 (♂ genitalia).
Type locality: OH, Delaware Co. – Type depository: FMNH (♂).
Taxonomy: Knull 1951; MacRae 2003.
Redescription: Nelson, *et al*. 1996:185 (♀).
Ecology: Nelson, *et al*. 1981; Nelson & MacRae 1990; Wellso & Jackman 2006 (biol., distr.).
Distribution: **USA**: GA, MO, NC, OH, WI
Host(s): larvae in *Carpinus caroliniana* Walt.; adults also on *Ulmus alata* Michx.
olentangyi Champlain & Knull 1925:469.
Type locality: TX – Type depository: MCZC 35041 (♂).
Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:239 (♂, ♀), fig. 59 (♂ genitalia).
Ecology: Fisher 1928a; Nelson & Westcott 1976; Hespenheide 1979b; Nelson, *et al*. 1981; Nelson 1987a; Westcott, *et al*. 1990 (distr.); MacRae 2006 (biol., distr.)
Distribution: **USA**: AL, AR, GA, IL, IN, KS, LA, MI, MO, MS, NM, OH, OK, SC, TN, TX
Host(s): larvae in *Rhus glabra* L.; adults also on *Celtis laevigata* Willd., *C. occidentalis* L., *C. tenuifolia* Nutt. and *Quercus* sp.
olivaceoniger Fisher 1928a:124 (♂, ♀).
Type locality: MA, probably Tyngsboro – Type depository: USNM 40995 (♂).
Taxonomy: Fisher 1928a.
Ecology: Fisher 1928a; Hespenheide 1979b (biol., distr.); Nelson, *et al*. 1981 (distr.).
Distribution: **USA**: CT, FL, MA, MO, NH, NJ, PA, WI
Host(s): adults on *Betula lenta* L. and *Quercus ilicifolia* Wangenh.
ometauhtli Fisher 1938:138.
Type locality: Mexico: Durango, Durango – Type depository: USNM 51568 (♂).
synonym: *patagoniensis* Knull 1941d:384, plate 1, fig. 4 (♂ genitalia) – Synonymy: Nelson 1987b:67.
Type locality: AZ, Patagonia Mtns. – Type depository: FMNH (♂).
Taxonomy: Nelson 1987b:67.
Redescription: Knull 1941d:384 (♂, ♀), fig. 4 (♂ genitalia).
Ecology: Westcott, *et al*. 1990; Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): unknown.
opacus Kerremans 1897 [syn. of *flohri*]
ornatulus Horn 1891b:319, plate 8, fig. 4 (elytra).
Type locality: SW TX – Type depository: MCZC 2139 (♀) (Lectotype designation: Fisher 1928a:207).
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Fisher 1928a:205 (♂, ♀), fig. 49 (♂ genitalia).
Ecology: Fisher 1928a; Vogt 1949b; Nelson & Westcott 1976 (distr.); Manley 1977 (biol.); MacRae 2006 (biol., distr.)
Distribution: **USA**: KS, TX
Host(s): larvae in *Sapindus saponaria* L. var *drummondii* (H. & A.) L. Benson and *Forestiera reticulata* Torr.
osburni Knull 1937b:38.
Type locality: OH, Put–in–Bay – Type depository: FMNH (♂).
Taxonomy: Knull 1937b; MacRae 2003.
Redescription: Knull 1944a: plate 3, fig. 17 (♂ genitalia); Nelson, *et al*. 1996 (♀).
Ecology: Hespenheide 1974; Nelson & Westcott 1976 (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: CT, GA, MI, MO, OH
Host(s): larvae in *Quercus phellos* L.; adults also on *Ostrya virginiana* (Mill.) K. Koch.
otiosus Say 1833:68 (*atiosus*, *lapsus calami*).
Type locality: IN – Type depository: USNM (♂) (original type destroyed; Neotype, from Kanawha WV, Station, designation: Fisher 1928a:84).
misidentification: *egenus* of authors (in part), not *egenus* Gory 1841.
synonym: *virens* Gory 1841:259, plate 43, fig. 252 (adult) – Synonymy: Chamberlin 1926:74.
Type locality: "Amer. Bor." – Type depository: MNHN.
Taxonomy: Horn 1891b; Fisher 1928a; MacRae 2003.
Redescription: Knull 1925: plate 1, fig. 21 (metaleg); Fisher 1928a:83 (♂, ♀) fig. 17 (♂ genitalia).

Ecology: Blackman & Stage 1924; Fisher 1928a: Nelson, *et al*. 1981; Bright 1987; Nelson 1987a; MacRae 1990 (biol.); Davies 1991 (distr.); MacRae 1991; Solomon 1995; MacRae 2006 (biol., distr.).

Distribution: **Canada**: MB, ON, PQ; **USA**: AL, AR, CT, DC, GA, IA, IL, IN, KS, KY, MA, MD, MI, MN, MO, MS, NC, NH, NJ, NY, OH, PA, VA, WI, WV; also recorded from Mexico.

Host(s): larvae in *Carya cordiformis* (Wangenh.) Manhattan, *C. laciniosa* (Michx. f.) G. Don, *C. illinoinensis* (Wangenh.) K. Koch, *C. ovata* (Mill.) K. Koch, *C. tomentosa* Nutt., *Diospyros virginiana* L., *Juglans cinerea* L., *J. nigra* L. and *Sassafras albidum* (Nutt.) Nees.

palmerleei Knull 1944a:76, plate 1, fig. 3 (♂ genitalia).

Type locality: AZ, Huachuca Mtns. – Type depository: FMNH (♂).

Taxonomy: Knull 1944a.

Redescription: Nelson 1980a:85 (♀).

Ecology: Knull 1970 (biol.).

Distribution: **USA**: AZ

Host(s): adults on *Quercus hypoleucoides* Camus.

parabductus Knull 1954a:28 (♂, ♀) Figs, 4, 5 (♂ genitalia).

Type locality: TX, Lake Corpus Christi. – Type depository: FMNH (♂).

Taxonomy: Knull 1954a.

Ecology: Nelson & Westcott 1976 (biol.); Westcott, *et al*. 1990; Westcott & Hespenheide 2006 (distr.).

Distribution: **USA**: TX; also recorded from Mexico.

Host(s): adults on *Acacia* sp.

paracelti Knull 1972a:113 (♂, ♀), figs. 1, 2 (♂ genitalia).

Type locality: OH, Greene Co., John Bryan State Park – Type depository: FMNH (♂).

misidentification: *celti* of authors (in part), not *celti* Knull 1920.

Taxonomy: Knull 1972a.

Ecology: Hespenheide 1974; Nelson & Westcott 1976; Nelson, *et al*. 1981; Nelson 1987a (distr.); MacRae 1991 (biol.); 2006 (biol., distr.).

Distribution: **USA**: CO, GA, KS, KY, MD, MI, MO, ND, NE, NJ, NY, OH, OK, PA, SD, TN, TX, VA

Host(s): larvae in *Celtis laevigata* Willd., *C. occidentalis* L., *C. tenuifolia* Nutt.; adults also on *Carya* sp., *Celtis l*. var. *reticulata* (Torr.) L. Benson, *Gymnocladus dioicus* (L.) K. Koch, *Quercus marilandica* (L.) Muenchh. and *Ulmus rubra* Muhl.

parafloridanus Knull 1929 [syn. of *floridanus*]

paraimpexus Hespenheide 2007:59 (♂, ♀), fig. 2 (♂ genitalia).

Type locality: Arizona: Pima Co., Mt. Lemmon – Type depository: USNM (♂).

Taxonomy: Hespenheide 2007:59.

Ecology (as *impexus*): Fisher 1928a; Nelson, *et al*. 1981 (biol., distr.); Walters & Bellamy 1990 (distr.); Westcott, *et al*. 1990; Nelson, *et al*. 1996 (biol., distr.); Hespenheide 2007 (biol., distr.).

Distribution: **USA**: AZ, CA, NM; also recorded from Mexico and Central America.

Host(s): larvae in *Ditaxis brandegeei* (Millsp.) Rose & Standl. and *Hoffmanseggia jamesii* Torrey & Gray; adults also on *Acacia angustissima* (Mill.) Kuntze, *A. farnesiana* (L.) Willd., *A. greggii* Gray, *Calliandra californica* Benth., *C. humilis* Benth., *Cercidium microphyllum* (Torr.) Rose & Standl., *Inga* sp., *Mimosa albida* Humb. & Bonpl. ex Willd., *M. biuncifera* Benth., *M. dysocarpa* Benth., *M. xantii* Gray, *Olneya tesota* Gray, *Pithecellobium dulce* (Roxb.) Benth. and *Prosopis glandulosa* var. *torreyana* (L. D. Benson) M.C. Johnst. and *P. juliflora* (Sw.) DC.

paramasculinus Champlain & Knull 1923c:274 (♂, ♀).

Type locality: KS, T. B. A. – Type depository: USNM 40007 (♂).

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:61 (♂, ♀), fig. 12 (♂ genitalia).

Ecology: Nelson & Westcott 1976 (biol., distr.); Nelson 1987a (distr.).

Distribution: **USA**: IA, KS, MO

Host(s): larvae in *Gymnocladus dioica* (L.) K. Koch.

parapubescens Knull 1934 [syn. of *pubescens*]

parkeri Knull 1935b:189 (♂, ♀).

Type locality: AZ, Chiricahua Mtns. – Type depository: FMNH (♂).

Taxonomy: Knull 1935b.

Redescription: Knull 1944a: plate 3, fig. 14 (♂ genitalia).

Ecology: Nelson & Westcott 1976 (biol.); Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): larvae in *Quercus arizonica* Sarg., *Q. emoryi* Torr. and *Q. hypoleucoides* Camus.

parputillus Knull 1960 [ssp. of *putillus*]

parvus californicus Westcott & Nelson 2000:308 (♂, ♀).
Type locality: CA, Riverside Co., E. of Hemet, Jct. San Jacinto R. & Hwy. 74 – Type depository: CASC 17818 (♂).
Taxonomy: Westcott & Nelson 2000.
Ecology: Westcott & Nelson 2000 (biol., distr.).
Distribution: **USA**: CA; also recorded from Mexico.
Host(s): adults on *Amorpha fruticosa* L.

parvus parvus Saunders 1870:26 (replacement name for *pusillus* Say 1825).
synonym: *pusillus* Say 1825:252 (preoccupied: *pusillus* Olivier 1790).
Type locality: on the Missouri – Type depository: USNM (♂) (original type destroyed; Neotype, from Kerrville, TX, designation: Fisher 1928a:319).
Taxonomy: Saunders 1871; Horn 1891b; Fisher 1928a; Bright 1987; Westcott & Nelson 2000.
Redescription: Fisher 1928a:318 (♂, ♀), fig. 87 (♂ genitalia).
Ecology: Fisher 1928a (as *pusillus*); Nelson & Westcott 1976; Nelson, *et al.* 1981; Bright 1987 (biol., distr.); Nelson 1987a (all as *pusillus*); Nelson & MacRae 1990; Davies 1991; Nelson, *et al.* 1996; Westcott & Nelson 2000; Westcott 2001b (distr.).
Distribution: **Canada**: MB; **USA**: AL, CO, FL, GA, IA, IL, KS, MI, MN, MO, MS, NC, ND, NE, NH, NJ, NY, OH, OK, PA, SD, TX, WI, WY
Host(s): adults on *Amorpha fruticosa* L.

patagoniensis Knull 1941 [syn. of *ometauhtli*]

pectoralis Waterhouse 1889:85.
Type locality: Mexico: N. Sonora – Type depository: BMNH (Lectotype designation: Hespenheide 1984:306).
synonym: *palmacollis* Horn 1891b:326 – Synonymy: Hespenheide 1984:306.
Type locality: S. AZ – Type depository: MCZC 2245 (♀) (Lectotype designation: Fisher 1928a:274).
misspelling: *palmaticollis* (*lapsus calami*).
Taxonomy: Horn 1891b; Fisher 1928a (as *palmacollis*); Hespenheide 1984.
Redescription: Horn 1891b:326 (♂, ♀); Fisher 1928a:272 (♂, ♀), fig. 70 (♂ genitalia).
Ecology: Fisher 1928a; Vogt 1949b (biol.); Nelson, *et al.* 1981; Westcott, *et al.* 1990; MacRae 2006 (biol., distr.); Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ, CA, NM, TX; also recorded from Mexico.
Host(s): larvae in *Acacia farnesiana* (L.) Willd., *Ebenopsis ebano* (Berl.) Barneby & Grimes, *Parkinsonia aculeata* L. and *Prosopis glandulosa* Torr.

pensus Horn 1891b:305.
Type locality: MA – Type depository: MCZC 2129 (♂) (Lectotype designation: Fisher 1928a:157).
synonym: *betulae* Fisher 1928a:153 (♂, ♀) – Synonymy: Carlson 1969:2930–B.
Type locality: MD, Plummer Island, near Washington, DC – Type depository: USNM 40998 (♂).
Taxonomy: Horn 1891b; Fisher 1928a; Carlson & Knight 1969; Bright 1987; Davies 1991.
Redescription: Fisher 1928a:155 (♂, ♀); Carlson & Knight 1969: figs. 4c, 8 (♂ genitalia)
Ecology: Carlson & Knight 1969 (biol.); Westcott 1991 (distr.); Solomon 1995; MacRae & Nelson 2003 (biol., distr.).
Distribution: Canada AB, NB, NS, ON, PE, PQ, SK; **USA**: MA, MD, ME, MO, MN, NH, NJ, PA, VA
Host(s): larvae in *Betula nigra* L.; adults also on *Alnus incana* (L.) Moench, *A. viridis* (Chaix) DC. ssp. *crispa* (Ait.) Turrill and *Ostrya virginiana* (Mill.) K. Koch.

pilosicollis Fisher 1928a:111.
Type locality: KS, Garden City – Type depository: USNM 40993 (♀).
Taxonomy: Fisher 1928a.
Ecology: Fisher 1928a (distr.).
Distribution: **USA**: KS
Host(s): unknown.

pilosovittatus Saunders 1873:515.
Type locality: Japan (Old World, accidentally introduced into No. Amer.) – Type depository: BMNH

(Lectotype designation: Jendek 1995:138).

synonym: *zemani* Obenberger 1925:34 – Synonymy: Obenberger 1936a:1022.

Type locality: Japan, Kobe – Type depository: NMPC .

Redescription: Hespenheide 1968:77 (♂, ♀), figs. 1, 2 (♂ genitalia).

Ecology: Hespenheide 1968 (biol., distr.); Nelson, *et al*. 1981 (distr.).

Distribution: **USA**: MD, NC, NJ, NY, PA; also recorded from Japan

Host(s): larvae in *Wisteria sinensis* (Sims) DC.

planipennis Fairmaire 1888:12.

Type locality: China: Bejing "Pekin" (Old World, accidentally introduced into No. Amer.). – Type depository: MNHN (♀).

synonym: *marcopoli* Obenberger 1930b:108 – Synomyny: Jendek 1994:21.

Type locality: Mongol. or Chanheou – Type depository: NMPC (♂) (Lectotype designation: Jendek 1994:21).

unavailable name: *molco-poli* Mina & Chûjô 1940:74 (unjustified emendation).

synonym: *feretrius* Obenberger 1936b:37–38 – Synomyny: Jendek 1994:21.

Type locality: Formosa, *teretrius* (sic) – Type depository: NMPC (♀) (Lectotype designation: Jendek 1994:21).

synonym: *ulmi* Kurosawa 1956:40–41 (as subspecies of *marcopoli*) – Synonymy: Jendek 1994:21.

Type locality: JAPAN Sapporo, Hokkaido – Type depository: NSMT (♂).

Taxonomy: Jendek 1944; Alexeev 1998.

Redescription: Kurosawa, *et al*. 1985: plate 5, fig. 2 (*marcopoli* ssp. *ulmi*); Jendek 1994: fig. 9 (*planipennis,* lectotype); Akiyama & Ohmomo 2000: fig. 1773 (*marcopoli* ssp. *ulmi*); Haack, *et al*. 2002: figs. (adult & larval damage) Liu, *et al*. 2003, 1 (distr., USA), 2 (distr., Asia), 3, 4 (parasitoids); McCullough & Katovich, 2004, 1 (adult), 2 (2nd, 3rd, 4th instar larvae), 3, 4 (larval workings).

Ecology: Jendek 1994; Akiyama & Ohmomo 1997; Haack, *et al*. 2002; Liu, *et al*. 2003; Muhle 2003 (distr.); McCullough & Katovich 2004 (biol., distr.).

Distribution: **Canada**: ON; **USA**: IN, MD, MI, OH, VA; also recorded from China, Japan, Mongolia, North & South Korea and the Russian Far East

Host(s): larvae in *Fraxinus americana* L., *F. chinensis* Roxb., *F. mandshurica* Rupr. var. *japonica* Maxim., *F. nigra* Marsh., *F. pennsylvanica* Marsh., *F. rhychophylla* Hance, *Juglans mandshurica* Maxim. var. *sieboldiana* (Maxim.) C.K. Schneid, *J. mandshurica* var. *sachaliensis* (Miyabe et Kudo) Kitamu, *Pterocarya rhoifolia* Sied. ex Zucc. and *Ulmus davidiana* Planch. var. *japonica* (Rehd.) Nakai.

plumbeus LeConte 1860 [syn. of *politus*]

politus (Say) 1825:251 (*Buprestis*).

Type locality: Bank of Mississippi River – Type depository: USNM (♂) (original type destroyed; Neotype, from IL, designation: Fisher 1928a:216).

misidentification: *corylus* of authors (in part), not Horn.

synonym: *plumbeus* LeConte 1860:247 – Synonymy: Horn 1891b:335.

Type locality: Lake Superior – Type depository: MCZC 2136 (Lectotype not designated).

synonym: *cupreolus* LeConte 1860:248 – Synonymy: Horn 1891b:335.

Type locality: KS – Type depository: MCZC 2135 (♀).

synonym: *desertus* LeConte 1860:249 (preoccupied: *desertus* Klug 1829) – Synonymy: Horn 1891b:335.

Type locality: CA, Junction of Colorado & Gila Rivers – Type depository: MCZC 2137 (♀)

misidentification: *niveiventris* of authors, not *niveiventris* Horn 1891.

synonym: *solitarius* Harold 1869:124 (replacement name for *desertus* LeConte 1860).

synonym: *canadensis* Obenberger 1917:181 – Synonymy: Fisher 1928a:214.

Type locality: Canada. Type depository: NMPC 25021.

Immature stages: Bøving & Craighead 1931: plate 80, fig. E (larva).

Taxonomy: Fisher 1928a.

Redescription: Knull 1925: plate 1, fig.9 (♀ antenna; Fisher 1928a:214 (♂, ♀) fig. 52 (♂ genitalia); Barr 1971: plate 8, fig. 7 (adult).

Ecology: Hutchings 1923; Fisher 1928a; Dearborn & Donahue 1933 (biol.); Maser & Beer 1971; Nelson, *et al*. 1981; Bright 1987; Nelson 1987a; Nelson & MacRae 1990; Davies 1991; Solomon 1995 (biol., distr.); Nelson, *et al*. 1996; Westcott & Hespenheide 2006 (distr.).

Distribution: **Canada**: AB, BC, MB, NS NT, ON, PQ, SK, YT; **USA**: AK, AR, AZ, CA, CO, CT, DC, DE, GA, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MI, MO, MS, MT, NC, ND, NE, NJ, NM, NV, NY, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VA, VT, WA, WI, WV, WY; also recorded from Mexico.

Host(s): larvae in *Acer glabrum* Torr., *A. pennsylvanicum* L., *Salix babylonica* L., *S. lasiolepis* Benth., *S. lucida* Muhl. ssp. *lasiandra* (Benth.) E. Murr. and, *S. scouleriana* Hook; adults also on *Picea* sp.and *Thuja occidentalis* L.

populi Fisher 1928 [ssp. of *granulatus*]

prionurus Chevrolat 1838:95.

Type locality: "Mexicum" – Type depository: BMNH.

Taxonomy: Waterhouse 1889:115.

Ecology: Wellso & Jackman 2006:265 (biol., distr.).

Distribution: **USA**: TX; also recorded from Mexico.

Host(s): adults and larvae from *Sapindus drummondii* Hook & Arnold.

prosopidis Fisher 1928a:275 (♂, ♀), fig. 71 (♂ genitalia).

Type locality: TX, Brownsville – Type depository: USNM 41009 (♂).

misidentification: *palmacollis* of authors (in part), not *palmacollis* Horn 1891.

Taxonomy: Fisher 1928a.

Ecology: Fisher 1928a; Vogt 1949b; Nelson, *et al*. 1981; Nelson 1987a; Westcott, *et al*. 1990; MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.); Westcott & Hespenheide 2006 (distr.).

Distribution: **USA**: TX; also recorded from Mexico.

Host(s): larvae in *Celtis ehrenbergiana* (Klot.) Liebm., *C. laevigata* Willd., *Leucaena pulverulenta* (Schlecht.) Benth., *Parkinsonia aculeata* L., *Prosopis glandulosa* Torr. and *Zanthoxylum fagara* (L.) Sarg.; adults also on *Acacia farnesiana* (L.) Willd. and *Ebenopsis ebano* (Berl.) Barneby & Grimes.

pseudocoryli Fisher 1928a:218 (♂, ♀) (as subspecies of *politus*).

Type locality: CT, Lyme – Type depository: USNM 41002 (♂).

misidentification: *coryli* of authors, not *coryli* Horn 1891.

misidentification: *politus* var. *corylus* of authors (in part), not *coryli* Horn 1891.

Taxonomy: Fisher 1928a; Nelson & Hespenheide 1998.

Ecology: Fisher 1928a; Bright 1987 (biol., distr.); Davies 1991 (distr.); Dearborn & Donahue 1993 (biol.).

Distribution: **Canada**: MB, ON; **USA**: CT, GA, IA, IL, KS, MA, ME, MI, NE, PA, SC, SD, VA, WV

Host(s): larvae in *Corylus americana* Walt. and *C. cornuta* Marsh.; adults also on *Abies* sp.

pseudofallax Frost 1923:279.

Type locality: PA, Allegheny – Type depository: MCZC 32208 (♂).

misidentification: *addendus* of authors, not *addendus* Crotch 1873.

misidentification: *impexus* of authors, not *impexus* Horn 1891.

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:284 (♂, ♀), fig. 75 (♂ genitalia).

Ecology: Fisher 1928a; Knull 1944a; Wellso 1974; Nelson & Westcott 1976; Nelson, *et al*. 1981; Nelson 1987a; Westcott 2001b (distr.); Wellso & Jackman 2006 (biol., distr.).

Distribution: **USA**: AL, AR, GA, IL, IN, LA, MI, MO, MS, OH, OK, PA, TX, WI

Host(s): larvae in *Gleditsia triacanthos* L.; adults also on *Quercus* sp.

pubescens Fisher 1928a:315 (♂, ♀).

Type locality: AZ, Tanke Verde – Type depository: USNM 41015 (♂).

synonym: *parapubescens* Knull 1934b:68 – Synonymy: Barr 2008:35.

Type locality: AZ Wilcox – Type depository: FMNH (♂).

misidentification: *wenzeli* of authors, not *wenzeli* Knull 1924.

Taxonomy: Fisher 1928a; Knull 1934b (*parapubescens*); Barr 2008.

Redescription: Knull 1944a: plate 2, fig. 11 (♂ genitalia); Barr 2008: fig. 3 (adult).

Ecology: Fisher 1928a (biol., distr.); Nelson & Westcott 1976 (biol.); MacRae & Nelson 2003 (distr.).

Distribution: **USA**: AZ, NE, SD, TX

Host(s): larvae in *Acacia greggii* Gray; adults on *Acacia greggii* Gray and *Prosopis glandulosa* Torr.

pubifrons Fisher 1928a:237 (♀).

Type locality: ID, Pocatello – Type depository: USNM 41004 (♀).

Taxonomy: Fisher 1928a.
Redescription: Nelson, *et al*. 1996:185 (♂), fig. 1 (erroneously labeled "*pubiventris*") (♂ genitalia).
Ecology: Fisher 1928a; Barr 1969a (biol., distr.); Nelson & Westcott 1976 (distr.).
Distribution: **USA**: CA, ID, NV, OR, UT
Host(s): larvae in roots of *Chrysothamnus viscidiflorus* (Hook.) Nutt.; adults also on *Artemesia* sp., *Chrysothamnus parryi* (Gray) Greene and *Grayia spinosa* (Hook.) Moq.

pubiventris Crotch 1873 [syn. of *lacustris*]

puncticeps LeConte 1860:249.
Type locality: S STATES – Type depository: MCZC (♀).
Taxonomy: Fisher 1928a (as ? synonym of *A. juglandis*).
Redescription: Fisher 1928a:96 (♀).
Distribution: **USA**: S. STATES
Host(s): unknown.

pusillus Say 1825 [syn. of *parvus parvus*]

putillus parputillus Knull 1960b:321 (♂, ♀).
Type locality: TX, Brewster Co., Big Bend National Park, Chisos Mtns., Pine Cyn. – Type depository: USNM (♂).
Taxonomy: Knull 1960b.
Ecology: Knull 1960b (biol., distr.).
Distribution: **USA**: TX
Host(s): larvae in *Acer grandidentatum* Nutt.

putillus putillus Say 1833:67.
Type locality: IN – Type depository: USNM (♂) (original type destroyed; Neotype, from Detroit, MI, designation: Fisher 1928a:333).
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Fisher 1928a:331 (♂, ♀), fig. 92 (♂ genitalia).
Ecology: Fisher 1928a (biol., distr.); Knull 1960b; Hespenheide 1974 (biol.); Nelson, *et al*. 1981; Davies 1991 (distr.); Nelson, *et al*. 1996.
Distribution: **Canada**: ON, PQ; **USA**: AL, AR, GA, IL, IN, MA, MI, MO, NJ, NY, OH, OK, PA, VT
Host(s): larvae in *Acer platanoides* L., *A. saccharum* Marsh and *Gleditsia triacanthos* L.

quadriguttatus fulminans Fisher 1928a:148 (♂, ♀), fig. 33 (♂ genitalia) (as species).
Type locality: CA, Placerville – Type locality: USNM 40996 (♂).
Taxonomy: Fisher 1928a; Carlson 1969; Carlson & Knight 1969.
Ecology: Fisher 1928a; Nelson & Westcott 1976 (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: CA, NV, OR
Host(s): adults on *Salix goodingii* Ball, *S. lucida* Muhl. ssp. *lasiandra* Benth. and *S. lasiolepis* Benth.

quadriguttatus niveiventris Horn 1891b:304 (as species).
Type locality: CA, Los Angeles – Type depository: MCZC 2128 (♀) (Lectotype designation: Fisher 1928a:147).
Taxonomy: Fisher 1928a; Carlson 1969; Carlson & Knight 1969.
Redescription: Fisher 1928a:145 (♂, ♀), fig. 32 (♂ genitalia).
Ecology: Fisher 1928a (biol., distr.).
Distribution: **USA**: AZ, CA, NV, UT
Host(s): larvae in *Salix lucida* Muhl. ssp. *lasiandra* (Benth.) E. Murr.; adults also on *S. lasiolepis* Benth.

quadriguttatus quadriguttatus Gory 1841:228, pl.38, fig. 219 (adult).
Type locality: "Amer. Bor." – Type depository: MNHN (♂).
misidentification: *granulatus* of authors (in part), not *granulatus* Say 1823.
Taxonomy: Fisher 1928a; Carlson & Knight 1969.
Redescription: Fisher 1928a:142 (♂, ♀), fig. 31 (♂ genitalia).
Ecology: Fisher 1928a; Nelson & Westcott 1976; Nelson, *et al*. 1981; MacRae 1991; Westcott 1991; Nelson, *et al*. 1996; Peck & Thomas 1998; Westcott 2001b (distr.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AR, CO, DC, FL, GA, IA, IL, IN, KS, MD, MI, MO, MT, NC, ND, OH, OK, PA, SC, SD, TX, VA
Host(s): larvae in *Alnus* sp., *Salix nigra* Marsh. and *Salix* sp.; adults also on *Populus nigra* L., *Salix exigua* Nutt. and *S. interior* Rowlee.

quadriimpressus Ziegler 1845:267.
Type locality: GA – Type depository: MCZC.
misidentification: *acutipennis* of authors (in part), not *acutipennis* Mannerheim 1837.
Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:133 (♂, ♀).
Ecology: Fisher 1928a (biol., distr.); Nelson, *et al*. 1981; Nelson & MacRae 1990; MacRae 1991 (biol.); Nelson, *et al*. 1996 (distr.).
Distribution: **USA**: CT, DC, GA, KY, MA, MI, MO, NY, OH, OK, TN, VA, WV
Host(s): larvae in *Quercus* sp.; adults also on *Carya tomentosa* Nutt., *Quercus stellata* Wangenh. and *Q. velutina* Lam.
quercicola Fisher 1928a:120 (♂, ♀), fig. 28 (♂ genitalia).
Type locality: CO, N. Cheyenne Cyn. – Type depository: USNM 40994 (♂).
misidentification: *acutipennis* of authors (in part), not *acutipennis* Mannerheim 1837.
Taxonomy: Fisher 1928a.
Ecology: Fisher 1928a (biol., distr.); Nelson & Westcott 1976 (distr.).
Distribution: **USA**: AZ, CO, NM, TX, UT
Host(s): larvae in *Quercus gambelii* Nutt.
quercus Schaeffer 1905b:150.
Type locality: AZ, Huachuca Mtns., Palmerlee – Type depository: USNM 42648 (♂) (Lectotype designation: Nelson 1985a:89).
Taxonomy: Fisher 1928a; Nelson 1985a.
Redescription: Fisher 1928a:270 (♂, ♀), fig. 69 (♂ genitalia); Nelson 1985a (elytra, ♂ genitalia).
Ecology: Fisher 1928a (biol., distr.); Nelson & Westcott 1976 (biol.); Nelson 1987a; Westcott, *et al*. 1990; Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): adults on *Quercus arizonica* Sarg. and *Q. hypoleucoides* Camus.
restrictus Waterhouse 1889:119, plate 7, figs. 7, 7a (adult, abdominal segment).
Type locality: Mexico: Chihuahua, Pinos Altos – Type depository: BMNH (♂) (Lectotype designation: Nelson 1985b:134).
Taxonomy: Waterhouse 1889; Fisher 1928a.
Redescription: Fisher 1928a:174 (♂, ♀), fig. 40 (♂ genitalia).
Ecology: Waterhouse 1889; Fisher 1928a; Nelson 1965 (biol.); Bellamy 2003b (biol., distr.); Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): adults on *Quercua emoryi* Torr. and *Rhus virens* Lindenheimer ex Gray var. *choriophylla* (Woot. & Standl.) L. Benson.
rubicola Abielle 1897 [syn. of *cuprescens*]
rubroniger Hespenheide 1979b:479 (based on descriptions of Fisher 1928a:42 (♂, ♀), fig. 8 (♂ genitalia) (as *cupricollis* Gory).
Type locality: FL – Type depository: USNM (♂).
misidentification: *arcuatus* of authors (in part), not *arcuatus* Say 1825.
misidentification: c*upricollis* Fisher, not c*upricollis* Gory 1841.
Taxonomy: Horn 1891b; Fisher 1928a (as *cupricollis* Gory); Hespenheide 1979b.
Ecology: Fisher 1928a; Wellso 1973; Manley 1977 (as *cupricollis* Gory); Hespenheide 1979b (biol., distr.); Westcott 2007b (biol.).
Distribution: **USA**: AL, FL, GA, MO, SC, TX
Host(s): adults on huckleberry, other low shrubs, *Quercus laevis* Walt. and *Q. laurifolia* Michx.
ruficollis (Fabricius) 1787:184 (*Buprestis*).
Type locality: Amer. – Type depository: GUHC (Lectotype not designated).
synonym: *cupricollis* Gory 1841:240, plate 40, fig. 232 (adult) – Synonymy: Hespenheide 1979b:479.
Type locality: FL – Type depository: MNHN (♂).
synonym: *impressiceps* Pic 1918:2 – Synonymy: Jendek 2001:174.
Type locality: GERMANY Allemagne – Type depository: MNHN (Lectotype designation: Jendek 2001:174).
Taxonomy: Fisher 1928a; Hespenheide 1979b.
Redescription: Fisher 1928a:31 (♂, ♀), fig. 4 (♂ genitalia).

Ecology: Hutchings 1923 (biol.); Fisher 1928a (as *cupricollis* Gory); Wellso 1974; Nelson, *et al*. 1981; Bright 1987; Davies 1991 (distr.); Solomon 1995 (biol., distr.).
Distribution: **Canada**: MB, ON, PQ; **USA**: AL, AR, CA, CT, DC, DE, FL, GA, IA, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, NC, NE, NH, NJ, NY, OH, OK, PA, RI, SC, TN, TX, VA, VT, WI, WV; also recorded from Germany
Host(s): larvae in domestic and wild *Rubus* spp.

salviaphilos Manley 1979:327 (♂, ♀), figs. 1, 2 (♂ genitalia, adult ♂).
Type locality: TX, Frio Co., 3 mi S Moore – Type depository: USNM (♂).
Taxonomy: Manley 1979.
Ecology: Manley 1979 (biol., distr.).
Distribution: **USA**: TX
Host(s): adults on *Salvia ballotiflora* Benth.

santaritae Knull 1937 [syn. of *latifrons*]

sapindi Knull 1938c:139, plate 1, fig. 4 (♂ genitalia).
Type locality: TX, Davis Mtns. – Type depository: FMNH (♂).
Taxonomy: Knull 1938c.
Redescription: Nelson & Westcott 1976:283 (♀).
Ecology: Nelson & Westcott 1976 (biol., distr.); Nelson, *et al*. 1981 (distr.).
Distribution: **USA**: KS, NM, TX
Host(s): adults on *Sapindus saponaria* L. var. *drummondii* (H. & A.) L. Benson.

sapindicola Vogt 1949 [syn. of *taeniatus*]

sayi Saunders 1870:19 (replacement name for *lateralis* Say 1823).
synonym: *lateralis* (Say) 1823:160 (*Buprestis*) (preoccupied: *lateralis* Oliver 1790).
Type locality: MO – Type depository: USNM (♂) (original type destroyed; Neotype, from CT, Lyme designation: Fisher 1928a:36).
synonym: *browni* Carlson & Knight 1969:5 (unjustified new name, based on neotype of *lateralis*).
Taxonomy: Fisher 1928a (as *lateralis*); Carlson & Knight 1969 (as *browni*); Bright 1981; 1987.
Redescription: Fisher 1928a:34 (♂, ♀) (as *lateralis*); Bright 1987:233.
Ecology: Fisher 1928a (as *lateralis*); Nelson, *et al*. 1981 (as *browni*); Bright 1987; Davies 1991; Solomon 1995 (biol., distr.); Wellso & Jackman 2006 (distr.).
Distribution: **Canada**: NB, NS, ON, PQ; **USA**: CT, FL, IL, MA, ME, MI, MO, NH, NJ, NY, PA, RI
Host(s): larvae in living stems of *Myrica carolinensis* (Mill.) Small.; adults also on *Comptonia peregrina* (L.) Coult.

scitulus Horn 1891b:318.
Type locality: TX, probably Waco – Type depository: MCZC 33824 (♂).
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Fisher 1928a:196 (♂, ♀), fig. 46 (♂ genitalia).
Ecology: Fisher 1928a; Nelson & Westcott 1976; Manley 1977 (biol., distr.); Nelson, *et al*. 1981 (distr.).
Distribution: **USA**: KS, OK, TX
Host(s): larvae in *Sapindus saponaria* L. var. *drummondii* (H. & A.) L. Benson.

shoemakeri Knull 1938a:99.
Type locality: AZ, Santa Cruz Co., Nogales – Type depository: FMNH (♂).
Taxonomy: Knull 1938a.
Redescription: Knull 1944a: plate 3, fig. 21 (♂ genitalia); Nelson 1965:40 (♀).
Ecology: Westcott, *et al*. 1990 (distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): unknown.

sierrae Van Dyke 1923:40 (♂, ♀).
Type locality: CA, Mariposa Co. – Type depository: CASC 3322 (♂).
Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:253 (♂)
Distribution: **USA**: CA
Host(s): unknown.

sinuatus (Olivier) 1790:74 (*Buprestis*), plate 10, fig. 111.

Type locality: France, Provence (Old World, accidentially introduced into No. Amer.) – Type depository: MNHN, BMNH (Lectotype not designated).
misidentification: *acutipennis* of authors, not *acutipennis* Mannerheim 1837.
misidentification: *anxius* of authors, not *anxius* Gory 1841.
synonym: *chryseis* Curtis 1825: No. 67, plate 67 (adult) – Synonymy: Obenberger 1936a:1047.
Type locality: (England), Hampshire, between Brockenhurst & Bottomsley – Type depository: unknown.
Taxonomy: Fisher 1928a.
Redescription: Knull 1925: plate 1, fig. 23 (prosternal lobe); Fisher 1928a:221 (♂, ♀), fig. 53 (♂ genitalia).
Ecology: Mutchler & Weiss 1922 (biol.); Fisher 1928a; Solomon 1995; Bílý 2002 (biol., distr.).
Distribution: **USA**: CT, NJ, NY; also widely recorded from Palaearctic region.
Host(s): larvae in *Pyrus communis* L. and *Crataegus* sp.
snowi Fall 1905b:270.
Type locality: AZ, "Bill Williams Fork" – Type depository: SEMC (♂).
Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:180 (♂, ♀); Knull 1944a: plate 1, fig. 1 (♂ genitalia).
Ecology: Fisher 1928a (distr.); Knull 1944a (biol.).
Distribution: **USA**: AZ
Host(s): adults on *Cercidium floridum* Gray and *C. microphyllum* (Torr.) Rose & Johnston.
solitarius Harold 1869 [syn. of *politus*]
strigicollis Fall 1912 [syn. of *arizonicus*]
subcinctus Gory 1841:252, plate 42, fig. 245 (adult).
Type locality: "Amer. Bor." – Type depository: MNHN.
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Fisher 1928a:300 (♂, ♀), fig. 81 (♂ genitalia).
Ecology: Fisher 1928a (biol., distr.); Knull 1932 (biol.); Hespenheide 1974; Nelson and Westcott 1976; Wellso, *et al*. 1976; Bright 1987; Nelson 1987a; Davies 1991; Nelson, *et al*. 1996 (distr.).
Distribution: **Canada**: ON; **USA**: AR, DC, DE, FL, GA, IL, IN, KS, LA, MI, MO, NC, NE, NJ, NM, NY, OH, OK, PA, TX, VA
Host(s): larvae in *Fraxinus pennsylvanica* Marsh.; adults also on *Carya* sp., *Fraxinus americana* L., *Gymnocladus dioicus* (L.) K. Koch, *Ligustrum* spp. and *Toxicodendron pubescens* Mill.
subfasciatus LeConte 1860 [syn. of *lecontei lecontei*]
subrobustus Saunders 1873:516.
Type locality: Nagasaki – Type depository: BMNH (lectotype designated: Jendek 1995:139).
Taxonomy: Jendek 1995:139; Akiyama & Ohmomo 1997:40; Jendek 2006:402 (five Asian synonyms listed).
Redescription: Jendek 1995:139; Akiyama & Ohmomo 2000: fig. 1789–1, 1789–2.
Ecology: Westcott 2007a (biol., distr.).
Distribution: **USA**: GA; also recorded from China, Japan, North Korea, South Korea
Host(s): *Albizia julibrissin* Durazzini; on oaks.
subtropicus Schaeffer 1905a:131.
Type locality: TX, Brownsville, Esperanza Ranch – Type depository: USNM 42656 (♂) (Lectotype designation: Bellamy & Nelson 1990:291).
Taxonomy: Schaeffer 1905a; Fisher 1928a.
Redescription: Fisher 1928a:22 (♂, ♀), fig. 2 (♂ genitalia).
Ecology: Fisher 1928a (biol., distr.); Knull 1937b (biol.); Westcott, *et al*. 1990; Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: TX; also recorded from Mexico.
Host(s): adults on *Celtis ehrenbergiana* (Klot.) Liebm. and *Diospyros texana* Scheele.
sulcaticeps Abeille de Perrin 1869 [syn. of *cyanescens*]
taeniatus Chevrolat 1835: No. 140.
Type locality: Mexique, Alvarado – Type depository: BMNH (♂).
synonym: *sapindicola* Vogt 1949a:50 (♂, ♀), fig. 8 (♂ genitalia) – Synonymy: Hespenheide 1979a:109.
Type locality: TX, SW Hidalgo Co., 1 mi S Granjeno – Type depository: USNM (♂).
Taxonomy: Waterhouse 1889; Vogt 1949a (as *sapindicola*); Hespenheide 1979a.

Redescription: Vogt 1949a:50 (♂, ♀), fig. 8 (♂ genitalia as *sapindicola*).
Ecology: Vogt 1949a; 1949b (distr. & biol. as *sapindicola*).
Distribution: **USA**: TX; also recorded from Mexico.
Host(s): adults on *Sapindus saponaria* L. var *drummondii* (H. & A.) L. Benson.

tarahumarae Cazier 1951 [syn. of *fisherellus*]
texanus Crotch 1873 [syn. of *cavatus*]
teuqualoi Fisher 1938 [syn. of *cercidii*]
torpidus LeConte 1860 [syn. of *anxius*]

torquatus LeConte 1860:243.
Type locality: KY – Type depository: MCZC 2123 (♂) (Type, No. 1 in *arcuatus* series according to Fisher 1928a:70).
Taxonomy: Fisher 1928a; Nelson & Hespenheide 1998.
Redescription: Ruggles 1918: plate 1, fig. 2 (adult); Fisher 1928a:69 (♂, ♀).
Ecology: Fisher 1928a (biol., distr.); Nelson & Westcott 1976; Nelson & MacRae 1990 (distr.); MacRae 1991; Solomon 1995 (biol.).
Distribution: **USA**: CT, IL, IN, KY, MA, MD, MI, MO, MS, NY, OK, PA, RI, VA, WV
Host(s): larvae in *Carya illinoinensis* (Wangenh.) K. Koch. and *C. ovata* (Mill.) K. Koch.; adults also on *Ostrya virginiana* (Mill.) K. Koch.

townsendi Fall 1907:234.
Type locality: NM, White Mtns., Rio Ruidoso, about 6500' – Type depository: MCZC 24451 (♀).
Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:48 (♂, ♀); Knull 1944a: plate 1, fig. 4 (♂ genitalia).
Ecology: Fisher 1928a; Cazier 1951b (distr.); Nelson & Westcott 1976 (biol.); MacRae 2006 (biol., distr.).
Distribution: **USA**: AZ, NM; also recorded from Mexico.
Host(s): adults on *Quercus arizonica* Sarg., *Q. emoryi* Torr., *Q gambelii* Nutt. and *Q. hypoleucoides* Camus.

toxotes Obenberger 1935b:137.
Type locality: Mexico – Type depository: NMPC 24556 (♀).
Taxonomy: Nelson 1987b.
Redescription: Nelson 1987b:69 (♂, ♀), figs. 4–6 (elytra & ♂ genitalia).
Ecology: Nelson 1987b (biol., distr.).
Distribution: **USA**: TX; also recorded from Mexico.
Host(s): adults on *Malpighia glabra* L.

transimpressus Fall 1925:181.
Type locality: AR. Hope – Type depository: MCZC 24452 (♂).
Taxonomy: Fisher 1928a; MacRae 2003.
Redescription: Fisher 1928a:88 (♂, ♀), fig. 19 (♂ genitalia).
Ecology: Fisher 1928a (biol., distr.); Nelson & Westcott 1976; Nelson, *et al.* 1981; Nelson & MacRae 1990 (distr.).
Distribution: **USA**: AR, IN, KS, MD, MI, MN, MO, MS, NC, NJ, OH, SC, TN, VA, WV
Host(s): larvae in *Juglans nigra* L.; adults also on *Carya* sp.

trichocarpae Chamberlin 1929 [syn. of *granulatus populi*]

turnbowi Nelson 1990:374 (♂, ♀), fig. 1 (♂ genitalia).
Type locality: TX, Bexar Co., San Antonio, Ft. Sam Houston – Type depository: USNM (♂).
Taxonomy: Nelson 1990.
Ecology: Nelson 1990 (biol., distr.).
Distribution: **USA**: TX
Host(s): larvae in *Phoradendron tomentosum* (DC.) Engelm. ex Gray.

ulmi Kurosawa 1956 [syn. of *planipennis*]

ventralis Horn 1891b:320, plate 8, figs. 21, 22 (abdomen).
Type locality: NM – Type depository: MCZC 33825.
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Fisher 1928a:188; Knull 1944a: plate 3, fig. 15 (♂ genit).
Ecology: Nelson & Westcott 1976 (biol., distr.); Hespenheide 1979b; MacRae & Nelson 2003; Wellso & Jackman 2006 (distr.); Walters & Bellamy 1990 (biol.).

Distribution: **USA**: AZ, CA, NE, NM, NV, TX. UT
Host(s): adults on *Acacia greggii* Gray, *Encelia actoni* Elmer, *Prosopis glandulosa* Torr. and *Salix* sp.

virens Gory 1841 [syn. of *otiosus*]
virens Schilski 1888 [syn. of *cyanescens*]

viridescens Knull 1935a:97 (♂, ♀).
Type locality: TX, Brownsville – Type depository: FMNH (♂).
Taxonomy: Knull 1935a.
Redescription: Knull 1944a: plate 3, fig.18 (♂ genitalia).
Ecology: Westcott, *et al.* 1990; Westcott & Hespenheide 2006 (distr.); Nelson, *et al.* 1981 (biol.).
Distribution: **USA**: TX; also recorded from Mexico.
Host(s): larvae in *Prosopis glandulosa* Torr.

vittaticollis (Randall) 1838:38 (*Buprestis*).
Type locality: MA Cambridge – Type depository: type lost.
synonym: *frenatus* Gory 1841:239, plate 40, fig. 231 (adult) – Synonomy: LeConte 1863a:43.
Type locality: "Amer. Bor." – Type depository: MNHN (Lectotype not designated).
Taxonomy: Horn 1891b; Fisher 1928a.
Redescription: Fisher 1928a:104 (♂, ♀), fig. 24 (♂ genitalia).
Ecology: Mutchler & Weiss 1922 (biol.); Fisher 1928a; Nelson & Westcott 1976; Nelson, *et al.* 1981; Bright 1987; Nelson 1987a; Nelson & MacRae 1990; Davies 1991; Solomon 1995; Westcott 2001b (distr.); Wellso & Jackman 2006 (biol., distr.).
Distribution: **Canada**: BC, ON, PQ; **USA**: AL, CA, CT, DE, FL, GA, IA, ID, IL, MA, MD, ME, MI, MO, MS, MT, NC, ND, NH, NJ, NV, NY, OK, OR, PA, RI, SC, TX, UT, VA, WA, WI, WV
Host(s): larvae in *Amelanchier canadensis* (L.) Medik., *Crataegus* sp., *Malus* spp. and *Pyrus* spp.; adults also on *Amelanchier arborea* (Michx. f.) Fern.

walsinghami Crotch 1873:95.
Type locality: OR, CA – Type depository: MCZC, ANSP (Type series contains both ♂ & ♀, lectotype not designated).
Taxonomy: Fisher 1928a.
Redescription: Fisher 1928a:176 (♂, ♀), fig. 39 (♂ genitalia); Barr 1971: plate 8, fig. 6 (adult).
Ecology: Fisher 1928a; Barr 1971 (biol.); Nelson & MacRae 1990; Davies 1991 (distr.).
Distribution: **Canada**: BC; **USA**: AZ, CA, CO, ID, NM, NV, OR, UT, WA
Host(s): adults on *Chrysothamnus nauseosus* (Pall.) Britt. and *Salix* sp.

waltersi Nelson 1985a:89 (♂, ♀), figs. 1, 3 (elytra, ♂ genitalia).
Type locality: AZ, Santa Cruz Co., Peña Blanca Campground – Type depository: USNM (♂).
Taxonomy: Nelson 1985a.
Ecology: Nelson 1985a (biol.).
Distribution: **USA**: AZ
Host(s): adults on *Quercus arizonica* Sarg. and *Q. emoryi* Torr.

wenzeli Knull 1934d:333 (♂, ♀).
Type locality: AZ, Huachuca Mtns. – Type depository: FMNH (♂).
Taxonomy: Knull 1934d.
Redescription: Knull 1944a: plate 2, fig. 8 (♂ genitalia).
Distribution: **USA**: AZ
Host(s): unknown.

zemani Obenberger 1925 [syn. of *pilosovittatus*]
zemes Gory 1841 [syn. of *fallax*]

subgenus *Agrilus* (*Engyaulus*) Waterhouse 1889
Engyaulus Waterhouse 1889:50.
Type species: *Agrilus pulchellus* Bland 1865 (fixed by subsequent designation: Chamberlin 1926:200).
Taxonomy: Horn 1891b; Nelson & Westcott 1991; Bellamy 1995b; Bellamy & Nelson 2002.
Key(s): Nelson & Westcott 1991.

chalcogaster Van Dyke 1946 [ssp. of *inhabilis*]
cuprinus Nelson 1991 [ssp. of *inhabilis*]

hespenheidei Nelson *in* Nelson & Westcott 1991:133 (♀), figs. 10, 16, 20, 23 (lateral adult, ovipositor, ♂ genitalia, distr. map).
Type locality: NM, Eddy Co., 31° 19.4' N, 103° 44.4' W (site 8) – Type depository: USNM (♂).
Taxonomy: Nelson & Westcott 1991.
Ecology: Nelson & Westcott 1991 (distr. & biol.); MacRae & Nelson 2003 (biol.).
Distribution: **USA**: NM, TX
Host(s): adults on *Andropogon hallii* Hack., *Prosopis glandulosa* Torr. and *Quercus havardii* Rydb.

inhabilis chalcogaster Van Dyke 1946:83 (as species, erroneously described as ♀).
Type locality: CA, San Bernardino Co., Cajon Pass – Type depository: CASC 5512 (♂).
Taxonomy: Nelson 1968a; Nelson & Westcott 1991; Bellamy 1995b.
Redescription: Nelson & Westcott 1991:138 (♂, ♀), figs. 11, 21, 24 (lateral adult, ♂ genitalia, distr. map).
Ecology: Nelson & Westcott 1991 (biol., distr.); Nelson 1962; Walters 1975; 1978 (as *inhabilis*) (biol.).
Distribution: **USA**: CA
Host(s): adults on *Baccharis sergiloides* Gray, *Gutierrezia californica* (DC.) T. & G., *Hymenoclea salsola* Gray, *Senna armata* (S.Wats.) Irwin & Barneby and *Thamnosma montana* Torr. & Frem.

inhabilis cuprinus Nelson *in* Nelson & Westcott 1991:140, figs. 12, 22, 24 (lateral adult, ♂ genitalia, distr. map).
Type locality: CA, Inyo Co., Antelope Spring, 7 mi E Westgard Pass – Type depository: USNM (♂).
Taxonomy: Nelson & Westcott 1991; Bellamy 1995b.
Ecology: Nelson & Westcott 1991 (biol., distr.).
Distribution: **USA**: CA
Host(s): adults on *Chrysothamnus nauseosus* (Pall.) Britt. and *Gutierrezia* sp.

inhabilis inhabilis Kerremans 1900:341 (replacement name for *ineptus* Horn 1894).
synonym: *ineptus* Horn 1894:378 (preoccupied: *ineptus* Kerremans 1892).
Type locality: Mexico: Baja CA, Coral de Piedra, Sierra El Taste & Pescadero – Type depository: CASC 29 (♀).
Taxonomy: Fisher 1928a; Nelson 1968a; Nelson & Westcott 1991; Bellamy 1995b.
Redescription: Fisher 1928a:179 (♀); Nelson & Westcott 1991:136 (♂, ♀) figs. 13, 24 (antennae, Distr map).
Ecology: Nelson & Westcott 1991 (biol., distr.).
Distribution: Not in USA; also recorded from Mexico.
Host(s): adults swept from grasses, forbs and *Hymenoclea monogyra* Gray.

martini Obenberger 1943 [syn. of *pulchellus*]

pinalicus Wickham 1903 [syn. of *pulchellus*]

pulchellus Bland 1865:382.
Type locality: Colorado Territory – Type depository: ANSP 3294 (♀).
synonym: *martini* Obenberger 1943:86 (as variety of *pulchellus*) – Synonymy: Nelson & Westcott 1991:130.
Type locality: TX, Austin – Type depository: NMPC.
synonym: *pinalicus* Wickham 1903:69 – Synonymy: Fisher 1928a:101.
Type locality: NM, E. side Organ Mtns., Parkers Well – Type depository: USNM 51937 (♀).
Taxonomy: Horn 1891b; Fisher 1928a; Nelson & Westcott 1991; Bellamy 1995b.
Redescription: Good 1925: plate 11, fig. 39 (ala); Fisher 1928a:101 (♂, ♀), fig. 23 (♂ genitalia); Nelson & Westcott 1991.
Ecology: Fisher 1928a; Nelson & Westcott 1976; 1991 (biol., distr.); Westcott 2001 (distr.); Wellso 1974 (biol.); Westcott 2007b (distr.).
Distribution: **USA**: AZ, CO, ND, NM, OK, SD, TX, UT; also recorded from Mexico.
Host(s): larvae in roots of *Erigeron* sp.; adults also on *Allionia incarnata* L., *Boerhavia* sp., *Celtis ehrenbergiana* (Klot.) Liebm., *Chrysothamnus nauseosus* (Pall.) Britt., *Quercus arizonica* Sarg. and *Sphaeralcea* sp.

rubrovittatus Dugès 1891 [syn. of *rubrovittatus*]

rubrovittatus Waterhouse 1889:50.

Type locality: Mexico: Guanajuato – Type depository: BMNH (♀)
synonym: *rubrovittatus* Dugès 1891:28 – Synonymy: Nelson & Westcott 1991:128.
Type locality: Mexico: Guanajuato, Tupataro – Type depository: type lost.
Taxonomy: Waterhouse 1889; Nelson & Westcott 1981; Bellamy 1995b.
Ecology: Nelson & Westcott 1976 (biol., distr.); Nelson, *et al.* 1981 (distr.).
Distribution: **USA**: AZ, TX; also recorded from Mexico.
Host(s): adults on *Muhlenbergia longiligula* Hitchc.

utahensis Westcott *in* Nelson & Westcott 1991:123 (♂, ♀).
Type locality: UT, Emery Co., 4800', Dugout Spring, 2.5 air mi NE Big Flat Top – Type depository: USNM (♂).
Taxonomy: Nelson & Westcott 1991; Bellamy 1995b.
Ecology: Nelson & Westcott 1991 (biol., distr.).
Distribution: **USA**: AZ, UT
Host(s): unknown.

Tribe Aphanisticini Jacquelin du Val 1863
Aphanisticites Jacquelin du Val 1863:104.
Type genus: A*phanisticus* Latreille 1829.
Classification: Bellamy 1985; Hołyński 1993; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.
Key(s): Hołyński 1993:33 (subtribes); Bellamy & Nelson 2002:105.

Genus *Aphanisticus* Latreille 1829
Aphanisticus Latreille 1829:448.
Type species: *Aphanisticus pusillus* Gyllenhal 1808 (= *Buprestis pusilla* Olivier 1790) (fixed by subsequent designation: Westwood 1838:25).
Goniophthalma Chevrolat 1837:106.
Type species: *Goniophthalma mitrata* Chevrolat (fixed by monotypy).
Taxonomy: Bellamy & Nelson 2002; Bellamy 2003a.

cochinchinae seminulum Obenberger 1929:111.
Type locality: Singapore (Old World, accidentally introduced into No. Amer.) – Type depository: NMPC (♀) (Lectotype not designated).
Redescription: Wellso & Jackman 1995, fig. 1 (adult).
Ecology: Wellso & Jackman 1995 (distr.); Peck & Thomas 1998; MacRae & Nelson 2003 (biol., distr.); Bellamy 2007 (biol., distr.).
Distribution: **USA**: FL, TX; also recorded from Central America, Fiji, Hawai'i and Southeast Asia.
Host(s): larvae in *Saccharum officinarum* L. and *Tripsacum dactyloides* (L.) L.; adults also on "grass" and *Paspalum lividum* Trin.

Tribe Trachyini Laporte 1835
"Trachisites**,** Trachisidae" (sic) Laporte 1835:166.
Type genus: *Trachys* Fabricius 1801.
Scutellatae Section 9 Schönherr 1817.
Trachysites Gory & Laporte 1839 (part).
Phytoteradae Gistel 1856 (part).
Type genus: *Phytodera* Gistel 1856.
Trachydes Lacordaire 1857 (part).
Aphanisticites Jacquelin du Val 1863 (part).
Trachytes Jacquelin du Val 1863 (part).
Braches LeConte 1861 (part).
Trachiina C. G. Thomson 1864 (part).
Agrilini Schioedte 1865 (part).
Trachynini Kraatz 1869 (part).
Trachinini Oliveira 1884 (part).
Aphanisticinae E. Perrier 1893 (part)
Trachyni Kerremans 1893 (part).

Aphanisticii Acloque 1896 (part).
Trachites Kerremans 1903 (part).
Trachydini Reitter 1911 (part).
Aphanisticini Reitter 1911 (part).
Trachina Jakobson 1913 (part).
Trachinae Fleischer 1930 (part).
Trachyderinae Portevin 1931 (part).
Trachydinae Portevin 1931 (part).
Pachyschelinae Bøving & Craighead 1931 (part).
Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1903; Arnett 1962; Cobos 1979a; Nelson 1982; Bellamy 1985; Hołyński 1993; Kolibác 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.
Key(s): Arnett 1962:485 (genera); Cobos 1979a:416 (tribes & genera); Hołyński 1993 (subtribes); Bílý 1999a (European genera); Bellamy & Nelson 2002:105 (subtribes & genera).

Subtribe Trachyina Gory & Laporte 1839
Trachydina: Hołyński 1993:15.
Classification: Bellamy 2003a:95.

Genus *Trachys* Fabricius 1801
Trachys Fabricius 1801:218.
Type species: *Buprestis minuta* Linnaeus 1758 (fixed by subsequent designation: Westwood 1838:25).
Phytotera Gistel 1856:366 – Synonymy: Obenberger 1937:1354.
Type species: *Buprestis minuta* Linnaeus 1758 (fixed by subsequent designation: Bellamy 2003a:11).
Taxonomy: Bellamy & Nelson 2002; Bellamy 2003a.

troglodytiformis Obenberger 1918:54, 66 (as variety of *pygmaea*).
Type locality: "Süditalien, Frankreich; Algier: Oran" (Old World, accidentally introduced into No. Amer.) – Type depository: NMPC.
synonym: *pygmaea* (Fabricius) 1787:183 (*Buprestis*) (preoccupied: *pygmaea* (DeGeer 1774)).
Type locality: "Barbariae" – Type depository: unknown.
synonym: *coruscus* (Ponza) 1805:53 (*Buprestis*) – Synonymy: Kubáň 2006:421.
Type locality: "Salutiensia" (Old World) – Type depository: unknown.
synonym: *fabricii* Schaefer 1949:472 (replacement name for *pygmaea* (Fabricius 1787)) – Synonymy: Cobos 1986:320.
Immature stages: Weiss 1954 (life cycle as *pygmaea*).
Taxonomy: Kubáň 2006:421.
Redescription: Downie & Arnett 1996:774 (as *pygmaea*); Akiyama & Ohmomo 2000: fig. 1871.
Ecology: Linsley 1948; Weiss 1954 (biol., distr., as *pygmaea*).
Distribution: **USA**: NJ; also recorded from the Palearctic region.
Host(s): larvae in *Althaea rosea* L. and other Malvaceae (Europe).

Subtribe Brachyina Cobos 1979
Brachyina Cobos 1979a:424.
Type genus: *Brachys* Dejean 1833.
Trachysites Gory & Laporte 1839 (part).
Braches LeConte 1861 (part).
Trachyni Kerremans 1893 (part).
Trachites Kerremans 1903 (part).
Pachyschelinae Bøving & Craighead 1931 (part).
Agrilini Arnett 1962 (part).
Brachyini Cobos 1979a.
Classification Cobos 1979a; Nelson 1982; Bellamy 1985; Hołyński 1993; Bellamy & Nelson 2002; Bellamy 2003a.
Key(s): Cobos 1979a:417; Bellamy & Nelson 2002:105 (genera).

Genus *Brachys* Dejean 1833

Brachys Dejean 1833:83.

Type species: *Trachys tessellata* Fabricius 1801 (fixed by monotypy).
Immature stages: Nicolay & Weiss 1923:61 (eggs, larvae), parasitoid *Closterocerus cinctipennis* Ash.
Taxonomy: Nicolay & Weiss 1923 (revision).
Redescription: Nicolay & Weiss 1923:59; Bright 1987:304.
Ecology: Nicolay & Weiss 1923:60.
Key(s): Nicolay & Weiss 1923:61 (No. Amer. N of Mex.); Wellso, *et al*. 1976:20 (MI); MacRae 1991:122 (MO).

aerosus (Melsheimer) 1845:148 (*Trachys*).

Type locality: PA – Type depository: MCZC (Lectotype not designated).
synonym: *rufescens* Nicolay & Weiss 1923:72 (as variety of *aerosus*).
Type locality: IA, Iowa City – Type depository: USNM.
misidentification: *tesselatus* of authors, not *tesselatus* Fabricius 1801.
Immature stages: Burke 1917a: plate 6, fig. 3 (larva); Weiss & Nicolay 1919 (egg, larva).
Taxonomy: Nicolay & Weiss 1923.
Redescription: Nicolay & Weiss 1923:71, plate 11, fig. 7 (adult); Barr 1971: plate 8, fig. 8 (adult).
Ecology: Nicolay & Weiss 1923; Nelson & Westcott 1976; Nelson, *et al*. 1981; Bright 1987 (biol., distr.); Nelson, *et al*. 1996; Nelson & MacRae 1990; Davies 1991; MacRae 1991; Dearborn & Donahue 1993 (biol.); Peck & Thomas 1998; MacRae & Nelson 2003 (distr.); Westcott 2005.
Distribution: **Canada**: AB, BC, MB, NB, ON, PQ, SK; **USA**: AL, AR, AZ, CT, FL, GA, IA, IL, IN, MA, MD, ME, MI, MO, MT, NC, ND, NH, NJ, NY, OH, OK, PA, RI, SC, SD, TX, VA, VT, WA, WI, WV
Host(s): larvae in *Quercus rubra* L. var. *ambigua* (Gray) Fern; adults also on *Acer* sp., *Castanea pumila* (L.) Mill., *Corylus cornuta* Marsh., *C. columbiana* Howell *Crataegus punctata* Jacq., *Pinus banksiana* Lamb., *Populus tremuloides* Michx., *Quercus alba* L., *Q. gambelii* Nutt., *Q. imbricaria* Michx., *Q. macrocarpa* Michx., *Q. rubra* L., *Q. stellata* Wangenh., *Q. velutina* Lam., *Ulmus alata* Michx., *U. americana* L. and *U. rubra* Muhl.

aeruginosus Gory 1841:335, plate 56, fig. 329 (adult).

Type locality: "Amer. Bor." – Type depository: MNHN.
Taxonomy: Nicolay & Weiss 1923.
Redescription: Nicolay & Weiss 1923:73, plate 11, fig. 8 (adult).
Ecology: Nicolay & Weiss 1923; Nelson & Westcott 1976; Bright 1987; Nelson 1987a; Nelson & MacRae 1990; Davies 1991; MacRae 1991 (biol.); Peck & Thomas 1998 (distr.); MacRae 2006 (biol., distr.).
Distribution: **Canada**: ON, PQ; **USA**: AL, CT, DE, FL, GA, IA, IN, KS, MA, ME, MI, MO, NC, NH, NJ, NY, OK, SC, SD, TN, VA, WV
Host(s): adults on *Carya* sp., *Quercus alba* L., *Q. falcata* Michx., *Q. marilandica* (L.) Muenchh., *Q. stellata* Wangenh., *Q. velutina* Lam. and *Sassafras albidum* (Nutt.) Nees.

apachei Knull 1952c:359.

Type locality: AZ, Chiricahua Mtns. – Type depository: FMNH (♀).
Taxonomy: Knull 1952c.
Redescription: Nelson 1980a:86 (♂), fig. 2 (♂ genitalia).
Ecology: Knull 1952c (biol.); Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): adults on *Quercus hypoleucoides* Camus.

aurulenta (Kirby 1837) [syn. of *ovatus*]

barberi Fisher 1924:12 (♂, ♀).

Type locality: AZ, Williams – Type depository: USNM 26778 (♂).
Taxonomy: Fisher 1924.
Ecology: Fisher 1924 (distr.).
Distribution: **USA**: AZ, NM, TX
Host(s): adults on *Quercus gambelii* Nutt.

bellporti Nicolay & Weiss 1923 [syn. of *ovatus*]

blatchleyi Nicolay & Weiss 1923 [syn. of *floricola*]

cephalicus Schaeffer 1909:377.
Type locality: AZ, Huachuca Mtns. – Type depository: USNM 42651 (♀).
Taxonomy: Nicolay & Weiss 1923.
Redescription: Nicolay & Weiss 1923: plate 11, fig. 2 (adult); Nelson 1980a: fig. 3 (♂ genitalia).
Ecology: Walters & Bellamy 1982 (biol.); Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): adults on *Quercus arizonicus* Sarg., *Q. emoryi* Torr.,*Q. gambelii* Nutt. and *Q. hypoleucoides* Camus.

cuprescens Blatchley 1913 [syn. of *floricola*]

fasciferus Schwarz 1878:363.
Type locality: FL – Type depository: USNM 4517 (♂) (Lectotype designation: Bellamy & Nelson 1990:291).
Taxonomy: Nicolay & Weiss 1923.
Redescription: Nicolay & Weiss 1923: plate 11, fig. 3 (adult).
Ecology: Nicolay & Weiss 1923 (biol., distr.).
Distribution: **USA**: FL, GA
Host(s): adults on *Quercus virginiana* Mill.

floccosus Mannerheim 1837:118.
Type locality: Mexico: Oaxaca – Type depository: UZMH (Lectotype designation: Nelson 1976:168).
synonym: *heroica* Obenberger 1923:121 – Synonymy: Hespenheide 1979a:110.
Type locality: Mexico – Type depository: NMPC.
Taxonomy: Nicolay & Weiss 1923; Hespenheide 1979a.
Redescription: Nicolay & Weiss 1923:63, plate 11, fig. 1 (adult).
Ecology: Westcott & Hespenheidi, 2006 (distr.); Knull 1970 (biol.).
Distribution: **USA**: AZ; also recorded from Mexico.
Host(s): adults on *Quercus hypoleucoides* Camus.

floricola Kerremans 1900:347.
Type locality: FL – Type depository: BMNH (Lectotype not designated).
synonym: *blatchleyi* Nicolay & Weiss 1923:67 (♂ & ♀ as variety of *floricola*).
Type locality: FL, Dunedin – Type depository: USNM 50466 (♂).
synonym: *cuprescens* Blatchley 1913:23 – Synonymy: Nicolay & Weiss 1923:66.
Type locality: FL, near Sanford – Type depository: PURC (Lectotype designation: Blatchley 1930:38).
Taxonomy: Nicolay & Weiss 1923.
Redescription: Nicolay & Weiss 1923:67, plate 11, fig. 4 (adult).
Ecology: Nicolay & Weiss 1923; Nelson, *et al*. 1981 (distr.).
Distribution: **USA**: AL, FL, GA, MS, NC, SC
Host(s): adults on *Quercus laevis* Walt., *Q. margarettiae* Ashe ex Small and *Vaccinium arboreum* Marsh.

heroica Obenberger 1923 [syn. of *floccosus*]

horni Kerremans 1896 [syn. of *ovatus*]

laevicauda LeConte 1860 [syn. of *ovatus*]

lugubris LeConte 1860 [syn. of *tesselatus*]

molestus Gory 1841 [syn. of *ovatus*]

ovatus (Weber) 1801:76 (*Buprestis*).
Type locality: Amer. – Type depository: type lost.
synonym: *aurulenta* (Kirby) 1837:162 (*Trachys*) – Synonymy: LeConte 1860:251.
Type locality: Canada – Type depository: BMNH (Lectotype not designated).
synonym: *terminans* Gory & Laporte 1840:3 – Synonymy: Nicolay & Weiss 1923:68.
Type locality: "Amer. Bor." – Type depository: MNHN (Lectotype not designated).
synonym: *molestus* Gory 1841:332 – Synonymy: Nicolay & Weiss 1923:68.
Type locality: "Amer. Bor." – Type depository: MNHN (Lectotype not designated).
synonym: *laevicauda* LeConte 1860:252 – Synonymy: Crotch 1873:96.
Type locality: PA – Type depository: MCZC 2741.
synonym: *horni* Kerremans 1896:324 – Synonymy: Nicolay & Weiss 1923:68.
Type locality: KS– Type depository: BMNH (Lectotype not designated).

synonym: *bellporti* Nicolay & Weiss 1923:70 (as variety of *ovatus*).
Type locality: MA, Bellport – Type depository: USNM 50467.
misidentification: *tesselatus* of authors (in part), not *tesselatus* Fabricius 1801.
Immature stages: Weiss & Nicolay 1919 (egg, larva, pupa); Bøving & Craighead 1931: plate 80, figs. A–D (larva).
Taxonomy: Nicolay & Weiss 1923.
Redescription: Nicolay & Weiss 1923:69, plate 11, fig. 5 (adult); Akiyama & Ohmomo 2000: fig. 1839.
Ecology: Nicolay & Weiss 1923; Nelson & Westcott 1976; Nelson, *et al*. 1981; Nelson 1987a (distr.); MacRae 1991; Dearborn & Donahue 1993 (biol.); Nelson, *et al*. 1996.
Distribution: **Canada**: ON, PQ; **USA**: AL, AR, AZ, CO, CT, DC, DE, FL, GA, IA, IL, IN, KS, LA, MA, ME, MI, MO, MS, MT, NC, NE, NH, NJ, NM, NY, OH, OK, PA, SC, TX, VA, VT, WI, WV; also recorded from Mexico.
Host(s): larvae in *Quercus rubra* L. var. *ambigua* (Gray) Fern; adults also on *Quercus alba* L., *Q. falcata* Michx., *Q. imbricaria* Michx., *Q. laevis* Walt., *Q. marilandica* (L.) Muenchh., *Q. rubra* L., *Q. shumardii* Buckl., *Q. stellata* Wangenh. and *Q. velutina* Lam.

querci Knull 1952c:358 (♂, ♀), figs. 1, 2 (♂ genitalia).
Type locality: TX, Davis Mtns. – Type depository: FMNH (♂).
Ecology: Knull 1952c (biol., distr.); Nelson, *et al*. 1981; Westcott, *et al*. 1990 (distr.).
Distribution: **USA**: NM, TX
Host(s): adults on *Quercus* sp.

rufescens Nicolay & Weiss 1923 [syn. of *aerosus*]

terminans Gory & Laporte 1840 [syn. of *ovatus*]

tesselatus (Fabricius) 1801:218 (*Trachys*).
Type locality: Carolina – Type depository: type lost.
synonym: *lugubris* LeConte 1860:251 – Synonymy: Crotch 1873:96.
Type locality: Middle States – Type depository: MCZC 2742.
Taxonomy: Nicolay & Weiss 1923.
Redescription: Nicolay & Weiss 1923:65, plate 11, fig. 6 (adult); Good 1925: plate 10 (wing); Akiyama & Ohmomo 2000: fig. 1837.
Ecology: Nicolay & Weiss 1923; Nelson, *et al*. 1981 (distr.); Turnbow & Franklin 1981 (life cycle & parasitoids).
Distribution: **USA**: AL, FL, IN, MS, NC, SC, TX
Host(s): larvae in *Quercus laevis* Walt.

Genus *Taphrocerus* Solier 1833

Taphrocerus Solier 1833:314.
Type species: *Brachys alboguttatus* Mannerheim 1837 (= *gracilis* (Say 1825)) (fixed by monotypy).
Immature stages: Chapman 1923; Story, *et al*. 1979.
Taxonomy: Nicolay & Weiss 1920 (revision of USA sp.); Obenberger 1934 (revision); Bellamy & Nelson 2002; Bellamy 2003a.
Redescription: Bright 1987:309.
Ecology: Nicolay & Weiss 1920 (biol., distr.).
Key(s): Nicolay & Weiss 1920:143 (USA); Obenberger 1934:7; Wellso, *et al*. 1976:20 (MI); MacRae 1991:122 (MO); Downie & Arnett 1996:773 (NE No. Amer.).

agriloides Crotch 1873:96.
Type locality: TX – Type depository: MCZC 8286.
synonym: *texanus* Kerremans 1896:312 – Synonymy: Hespenheide 1979a:118.
Type locality: TX, not given – Type depository: BMNH.
Taxonomy: Nicolay & Weiss 1920; Hespenheide 1979a.
Redescription: Nicolay & Weiss 1920: plate 6, fig. C (adult).
Ecology: Vogt 1949b; Kissinger 1955; Nelson 1987a (distr.); Nelson & MacRae 1990 (biol., distr.); MacRae 1991 (biol.).
Distribution: **USA**: AL, FL, GA, KS, MO, NC, OH, OK, SC, TX
Host(s): adults on *Cladium* sp., *Eleocharis* sp. and *Nemastylis geminiflora* Nutt.

albodistinctus Knull 1954a:30 (♂, ♀), figs. 3, 7, 8 (adult, ♂ genitalia).
Type locality: FL, Lake City – Type depository: FMNH (♂).
Ecology: Nelson, *et al*. 1981; Nelson 1987a (distr.).
Distribution: **USA**: FL, GA, LA, MS
Host(s): unknown.

alboguttatus (Mannerheim) 1837 [syn. of *gracilis*]

albonotatus Blatchley 1919 [syn. of *cylindricollis*]

chevrolati Obenberger 1924:71.
Type locality: Mexico: San Durango – Type depository: NMPC.
synonym: *huachucanus* Knull 1944b:90 (♂, ♀), figs. 3, 4 (adult, ♂ genitalia) – Synonymy: Hespenheide 1979a:118.
Type locality: AZ, Huachuca Mtns. – Type depository: FMNH (♂).
Taxonomy: Hespenheide 1979a.
Redescription: Knull 1944b (♂, ♀), figs. 3, 4 (adult & ♂ genitalia as *huachucanus*).
Ecology: Nelson, *et al*. 1981; Nelson 1987a; Westcott, *et al*. 1990; Nelson & MacRae 1990; Westcott & Hespenheide 2006 (distr.); Westcott 2007b (distr.).
Distribution: **Canada**: AB; **USA**: AZ, CO, KS, MT, ND, NE, NM, OK, SD, TX, UT; also recorded from Mexico.
Host(s): unknown.

cylindricollis Kerremans 1896:312.
Type locality: PA, Philadelphia – Type depository: BMNH (Lectotype not designated).
synonym: *albonotatus* Blatchley 1919:29 – Synonymy: Hespenheide 1979a:119.
Type locality: FL, Dunedin – Type depository: PURC (Lectotype designation: Blatchley 1930:43).
Taxonomy: Nicolay & Weiss 1920 (as *albonotatus*); Hespenheide 1979a.
Redescription: Nicolay & Weiss 1920: plate 6, fig. F (adult as *albonotatus*).
Ecology: Nelson & Westcott 1976 (as *albonotatus*); Nelson, *et al*. 1981; Nelson 1987a; Nelson & MacRae 1990; MacRae 1991 (distr.); MacRae & Nelson 2003 (biol.).
Distribution: **USA**: AL, FL, GA, LA, MO, MS, NC, NJ, OK, PA, SC
Host(s): unknown.

floridanus Obenberger 1934b:48.
Type locality: FL, Lakeland – Type depository: NMPC.
Distribution: **USA**: FL
Host(s): unknown.

gracilis (Say) 1825:253 (*Trachys*).
Type locality: IN, Senipuxten Isld – Type depository: type destroyed.
synonym: *alboguttatus* (Mannerheim) 1837:120 (*Brachys*) – Synonymy: LeConte 1860:251.
Type locality: PA – Type depository: UZMH (Lectotype designation: Nelson 1976:168).
synonym: *grossus* Obenberger 1924:75 – Synonymy: Hespenheide 1979a:119.
Type locality: Amer. Mer. – Type depository: NMPC.
Immature stages: Chapman 1923: plate 1 (egg, larva), plate 2 (pupa).
Taxonomy: Nicolay & Weiss 1920; Hespenheide 1979a.
Redescription: Nicolay & Weiss 1920: plate 6, fig. E (adult); Good 1925: plate 11, fig. 44 (wing); Knull 1944b: fig. 2 (♂ genitalia); Wellso, *et al*. 1976: fig. 11 (pronotal sculpture); Akiyama & Ohmomo 2000: fig. 1845.
Ecology: Chapman 1923 (life cycle & parasitoid); Nelson, *et al*. 1981; Bright 1987; Nelson 1987a; Downie & Arnett 1996 (distr.); MacRae 2004 (biol., distr.).
Distribution: **Canada**: AB, MB, ON, PQ, SK; **USA**: AL, AR, AZ, CT, DC, FL, GA, IA, IL, IN, LA, MA, MD, ME, MI, MN, MO, NC, NH, NJ, NM, NY, OK, PA, SC, SD, TX, VA
Host(s): larvae in *Rhynchospora corniculata* (Lam.) Gray and *Schoenoplectus fluviatilis* (Torr.) Strong; adults also on *Carex hyalinolepus* Steud., *Cephalanthus occidentalis* L. and *Rumex verticillatus* L.

grossus Obenberger 1924 [syn. of *gracilis*]

howardi Obenberger 1934b:42.
Type locality: FL, Osceola Co. – Type depository: NMPC.
Redescription: Knull 1944b: fig. 5 (♂ genitalia).
Ecology: Nelson & Westcott 1976; Nelson, *et al*. 1981; Nelson 1987a; Nelson & MacRae 1990 (distr.); MacRae & Nelson 2003 (biol., distr.).

Distribution: **USA**: AR, FL, IL, KY, LA, MO, OK, SC, TX, WV
Host(s): adults on *Fimbristylis puberula* (Michx.) Vahl and *Scirpus* sp.

huachucanus Knull 1944 [syn. of *chevrolati*]

laevicollis LeConte 1878:403.
Type locality: FL, Enterprise – Type depository: MCZC 2740.
Taxonomy: Nicolay & Weiss 1920.
Redescription: Nicolay & Weiss 1920: plate 6: fig. D (adult).
Ecology: Nelson & Westcott 1976; Nelson 1987a (distr.).
Distribution: **USA**: AL, FL, LA, MO, MS
Host(s): unknown.

mercedensis White 1947:181 (♂, ♀), figs. 1, 2 (♂ genitalia).
Type locality: CA, Merced Co., 2 mi E Cressey – Type depository: CASC 8104 (♂).
Redescription: Helfer 1970:93 fig. (adult).
Ecology: Nelson, *et al*. 1981 (biol., distr.).
Distribution: **USA**: CA
Host(s): adults on *Carex densa* L. Bailey, *C. praegracilis* W. Boott. and *Juncus balticus* Willd.

nicolayi Obenberger 1924:72.
Type locality: NY – Type depository: NMPC (Lectotype not designated, both ♂ & ♀ in syntypes).
misidentification: *gracilis* of authors (in part), not *gracilis* Say 1825.
Ecology: Nelson, *et al*. 1981; Bright 1987; Nelson 1987a; Nelson & MacRae 1990; Nelson, *et al*. 1996 (distr.); MacRae & Nelson 2003 (biol.).
Distribution: **Canada**: ON; **USA**: AL, DC, FL, GA, IA, IL, IN, KY, LA, MA, MD, ME, MI, MO, NE, NH, NY, OH, OK, SC, SD, TX, VA, WV
Host(s): adults on *Carex emoryi* Dewey, *C. hyalinolepis* Steud. and *C. vulpinoidea* Michx.

puncticollis Schwarz 1878:363.
Type locality: FL, Cedar Keys – Type depository: MCZC 2250, USNM 4516.
Taxonomy: Nicolay & Weiss 1920.
Redescription: Nicolay & Weiss 1920: plate 6, fig. A (adult).
Ecology: Nicolay & Weiss 1970 (distr.).
Distribution: . **USA**: AL, FL, TX
Host(s): unknown.

schaefferi Nicolay & Weiss 1920:144, plate 6, fig. B (adult).
Type locality: TX, Brownsville – Type depository: USNM 50465.
Immature stages: Story, *et al*. 1979:94 (egg & larva), figs. 6–12 (larvae).
Redescription: Knull 1944b: fig. 6 (♂ genitalia).
Ecology: Vogt 1949b (biol); Nelson & Westcott 1976; Bright 1987 (distr.); Nelson, *et al*. 1981; Nelson 1987a; MacRae & Nelson 2003 (biol., distr.).
Distribution: **Canada**: AB, ON, SK; **USA**: AZ, CO, DE, FL, IA, IL, IN, LA, MD, MI, MO, MS, NY, OH, OK, PA, TX, VA, WV
Host(s): larvae in "nutsedge" and *Cyperus esculentus* L.; adults also on *Carex vulpinoidea* Michx.

sulcifrons Fisher 1922:67.
Type locality: Panama, Canal Zone, Juan Mina – Type depository: USNM 25121 (♂).
Ecology: Westcott 1991 (distr.).
Distribution: **USA**: AZ, TX; also recorded fom PANAMA.
Host(s): unknown.

texanus Kerremans 1896 [syn. of *agriloides*]

Subtribe Leiopleurina Hołyński **1993**
Leiopleurina Hołyński 1993:15, 32.
Type genus: *Leiopleura* Deyrolle 1864.
Classification: Hołyński 1993; Bellamy & Nelson 2002; Bellamy 2003a.
Key(s): Bellamy & Nelson 2002:105.

Genus *Leiopleura* Deyrolle 1864
Leiopleura Deyrolle 1864:219.
Type species: *Brachys concinna* Gory 1841 (fixed by original designation).

Leiopleurella Fisher 1922:91 – Synonymy: Cobos 1978b:63.
Type species: *Leiopleurella splendida* Fisher 1922 (fixed by original designation).
Enbrachys Fisher 1935:51 – Synonymy: Cobos 1978b:61.
Type species: *Enbrachys otero* Fisher 1935 (fixed by original designation).
Taxonomy: Cobos 1978b; Bellamy & Nelson 2002; Bellamy 2003a.

carbonata (LeConte) 1860:252 (*Brachys*).
Type locality: LA – Type probably mislabeled, occurrence in No. Amer. should be verified (Hespenheide 1984; 2003) – Type depository: MCZC 2744.
Taxonomy: Nicolay & Weiss 1920; Hespenheide 1984; 2003.
Distribution: **USA**: LA
Host(s): unknown.
otero (Fisher) 1935:52 (*Enbrachys*).
Type locality: Cuba:province of Havana, Santiago de las Vegas – Type depository: USNM 50961
Taxonomy: Cobos 1978b.
Redescription: Nelson, *et al*. 1981: figs. 1, 2 (adult, ♂ genitalia).
Ecology: Nelson, *et al*. 1981 (biol., distr.).
Distribution: **USA**: FL also recorded from Cuba
Host(s): adults on *Ficus* sp.

Subtribe Pachyschelina Bøving & Craighead 1931
Pachyschelina Bøving & Craighead 1931:49.
Type genus: *Pachyschelus* Solier 1833.
Trachysites Gory & Laporte 1839 (part).
Braches LeConte 1861 (part).
Trachyni Kerremans 1893 (part).
Trachites Kerremans 1903 (part).
Pachyschelinae Bøving & Craighead 1931 (part).
Agrilini Arnett 1962 (part).
Pachyschelina Cobos 1979a.
Classification: Cobos 1979a; Nelson 1982; Bellamy 1985; Hołyński 1993; Bellamy & Nelson 2002; Bellamy 2003a.
Key(s): Cobos 1979a:416; Bellamy & Nelson 2002:105 (genera).

Genus *Pachyschelus* Solier 1833
Pachyschelus Solier 1833:313.
Type species: *Pachyschelus scutellatus* Solier 1833 (fixed by monotypy).
Metonius Say 1833:68 – Synonymy: Saunders 1871:134.
Type species: *Metonius purpureus* Say 1833 (fixed by subsequent designation: Kubáň 2006:40).
Lius Chevrolat 1838:104; name suppressed (Opinion 2112, ICZN 2005b:104).
Type species: *Lius deplanatus* Chevrolat 1838 (fixed by monotypy).
Taxonomy: Nicolay & Weiss 1920 (revision); Hespenheide 2003; Bellamy & Nelson 2002; Bellamy 2003a.
Redescription: Bright 1987:298; Hespenheide 2003:459.
Ecology: Hespenheide 2003 (biol., distr.); Burke 1917a (biol.).
Key(s): Nicolay & Weiss 1920:138 (USA); Wellso, *et al*. 1976:17 (MI); Bright 1987:299 (Canada & AK); MacRae 1991:121 (MO) Hespenheide 2003:460 (USA & Canada).

americanus (Gory 1841) [syn. of *purpureus purpureus*]
biimpressus (Motschulsky 1860) [syn. of *purpureus purpureus*]
caeruleus Schwarz 1878 [syn. of *schwarzi*]
chapuisi (Dugès 1891) [syn. of *secedens*]
confusus Wellso, Manley & Jackman 1976:17 (♂, ♀), figs. 9B, D, 10 (♂ genitalia, adult, parts).
Type locality: MI, Shiawassee Co., T5N R1E Sec. 21 – Type depository: MSUC (♂).
Taxonomy: Hespenheide 2003.
Ecology: Wellso, *et al*. 1976; Bright 1987; Wellso & Jackman 2006 (biol., distr.).

Distribution: **Canada**: ON; **USA**: MI, MN, WI
Host(s): adults on *Lespedeza capitata* Michx.

dugesi Théry 1923 [syn. of *secedens*]

fisheri Vogt 1949a:53 (♂, ♀), fig. 10 (♀ last abd. ventrite).
Type locality: TX, SW Cameron Co., 3 mi E Santa Maria – Type depository: USNM (♀).
Ecology: Vogt 1949a; 1949b (biol., distr.).
Distribution: **USA**: TX
Host(s): larvae in *Bernardia myricifolia* (Scheele) S. Wats.

laevigatus (Say) 1833:69 (*Trachys*) (replacement name for *ovatus* Say 1825).
synonym: *ovatus* (Say) 1825:252 (*Trachys*) (preoccupied: *ovatus* Weber 1801).
Type locality: NY (Type locality given in 1839 paper) – Type depository: type destroyed.
synonym: *oblongus* (Motschulsky) 1860:54 (*Metonius*) – Synonymy: Nelson 1980a:93.
Type locality: TN – Type depository: ZMUM.
synonym: *punctata* (Gory) 1841:347 (*Brachys*) – Synonymy: LeConte 1857a:10.
Type locality: "Amer. Bor." – Type depository: MNHN (Lectotype not designated).
synonym: *politus* Kerremans 1896:322 – Synonymy: Nicolay & Weiss 1920:139.
Type locality: No. Amer. – Type depository: BMNH (Lectotype not designated).
Taxonomy: Nicolay & Weiss 1920; Nelson 1980a; Hespenheide 2003.
Redescription: Knull 1925: plate 7, fig. 4 (adult), plate 8, fig. 2 (pupal cell); Wellso, *et al*. 1976: fig. 9C (♂ genitalia).
Ecology: Knull 1920; Nelson, *et al*. 1981; Bright 1987; Nelson 1987a; Davies 1991; MacRae 1991 (biol.); MacRae & Nelson 2003 (distr.).
Distribution: **Canada**: ON, PQ; **USA**: AL, AR, CT, DC, DE, FL, GA, IA, IL, IN, KS, KY, LA, MA, MD, MI, MO, MS, NC, NH, NJ, NY, OK, PA, RI, SC, SD, TN, VA, WV
Host(s): larvae in *Desmodium ciliare* (Muhl. ex Willd.) DC., *D. viridiflorum* (L.) DC. and *Lespedeza* sp.; adults also on *Desmodium canescens* (L.) DC., *D. cuspidatum* (Muhl. ex Willd.) DC. ex Loud., *D. glutinosum* (Muhl. ex Willd.) Wood, *D. paniculatum* (L.) DC. and *D.perplexum* Schub.

nicolayi Obenberger 1925:103 (as variety of *schwarzi*).
Type locality: "South West AK" – Type depository: NMPC (♂).
Taxonomy: Obenberger 1925; Hespenheide 2003.
Redescription: Hespenheide 2003:463 (♂ ♀), figs. 4–6 (habitus, ♂ genitalia, ♀ last abd. ventrite).
Ecology: Hespenheide 2003; (biol., distr.): MacRae 2006 (distr.).
Distribution: **USA**: AR, DE, FL, KS, KY, LA, MS, MO, NC, ND, OK, SC, TN, TX, WV
Host(s): larvae in *Apios americana* Medik. and *Wisteria frutescens* (L.) Poir.

oblongus (Motschulsky 1860) [syn. of *laevigatus*]

oculatus Schaeffer 1909 [syn. of *secedens*]

ovatus (Say 1825) [syn. of *laevigatus*]

politus Kerremans 1896 [syn. of *laevigatus*]

punctata (Gory 1841) [syn. of *laevigatus*]

purpureus purpureus (Say) 1833:69 (*Metonius*).
Type locality: IN – Type depository: type destroyed.
synonym: *americanus* (Gory) 1841:346 (*Brachys*) – Synonymy: LeConte 1857a:10.
Type locality: "Amer. Bor." – Type depository: MNHN (Lectotype not designated).
synonym: *biimpressus* (Motschulsky) 1860:54 (*Metonius*) – Synonymy: Nelson 1980a:94.
Type locality: none given – Type depository: ZMUM.
Taxonomy: Nicolay & Weiss 1920; Hespenheide 1974b; Nelson 1980a; Hespenheide 2003.
Redescription: Good 1925: plate 10 (wing); Wellso, *et al*. 1976: fig. 9A (♂ genitalia).
Ecology: Knull 1948; Bright 1987 (biol., distr.); Nelson 1987a; Westcott 1991; MacRae & Nelson 2003 (distr.); MacRae 1991; Hespenheide 2003 (biol.).
Distribution: **Canada**: AB, ON; **USA**: AL, AR, AZ, CT, IA, IL, IN, LA, MA, MI, MN, MO, NC, NJ, NM, NY, OH, OK, PA, RI, TN, TX, WI
Host(s): larvae in *Geranium maculatum* L. and *Lespedeza* sp.; adults also on *Carya* sp., *Fraxinus americana* L., *Juglans nigra* L. and *Toxicodendron pubescens* Mill.

purpureus uvaldei Knull 1941d:387 (sexes reversed in original description).
Type locality: TX, Uvalde Co. – Type depository: FMNH (♀).
Taxonomy: Knull 1948; Hespenheide 1974b; 2003.

Ecology: Knull 1948 (biol.).
Distribution: **USA**: TX
Host(s): adults on *Acalypha hederacea* Torr.

schwartzi Kerremans 1892:298 (replacement name for *caeruleus* Schwarz 1878).
synonym: *caeruleus* Schwarz 1878:364 (preoccupied: *caeruleus* Gory 1841).
Type locality: FL – Type depository: USNM 25102 (♂) (Lectotype designation: Bellamy & Nelson 1990:295).
misspelling: *schwartzi* (*lapsus calami*).
Immature stages: Burke 1917a: plate 6, fig. 4 (larva).
Taxonomy: Nicolay & Weiss 1920; Obenberger 1937; Hespenheide 1979.
Redescription; Hespenheide 2003:465 (♂, ♀), figs. 7–9 (habitus, ♂ genitalia, last abd. ventrite).
Ecology: Nelson & MacRae 1990; MacRae 1991 ; Hespenheide 2003 (distr., biol.); Nelson, *et al.* 1981 (distr.).
Distribution: **USA**: FL, GA
Host(s): unknown.

secedens Waterhouse 1889:145.
Type locality: Mexico: Guanajuatro Tupátaro – Type depository: BMNH (♀) (Lectotype designation: Hespenheide 1974b:105).
synonym: *chapuisi* (Dugès) 1891:36 (*Brachys*) – Synonymy: Hespenheide 1974b:105.
Type locality: Mexico: Guanajuato, Tupátaro – Type depository: unknown.
synonym: *oculatus* Schaeffer 1909:377 (as variety of *schwarzi*) – Synonymy: Hespenheide 1979a:116.
Type locality: AZ, Nogales – Type depository: USNM 42652.
synonym: *dugesi* Théry 1923:113 – Synonymy: Hespenheide 1979a:116.
Type locality: Mexico: Guanajuato – Type depository: MNHN (Lectotype not designated).
Taxonomy: Nicolay & Weiss 1920 (as *oculatus*); Hespenheide 1974b; 1979a.
Ecology: Knull 1948; 1970 (biol. as *oculatus*); Hespenheide 1974b; 1979a; Nelson, *et al.* 1981; Hespenheide 2003; Westcott & Hespenheide 2006 (distr.).
Distribution: **USA**: AZ, CO; also recorded from Mexico.
Host(s): larvae in *Desmodium batocaulon* Gray.

uvaldei Knull 1941 [ssp. of *purpureus*]

vogti Hespenheide 2003:461 (♂, ♀), figs. 1, habitus, 2, ♂ genitalia, 3, ♀ last abd. ventrite.
Type locality: FL, Putman Co., Crescent City – Type depository: USNM (♂).
Taxonomy: Hespenheide 2003.
Ecology: Hespenheide (biol., distr.).
Distribution: **USA**: FL, GA, SC, TX
Host(s): adults on *Desmodium obtusum* (Muhl. ex Willd.) DC., *Lespedeza copitata* Michx. and *Psoralea* sp.

Appendix 1

Classification of the Superfamily Buprestoidea Leach 1815 in the United States and Canada

Family Schizopodidae LeConte 1859

Subfamily Schizopodinae LeConte 1859

- Tribe Schizopodini LeConte 1859
  - *Schizopus* LeConte 1858
- Tribe Dystaxiini Théry 1929
  - *Dystaxia* LeConte 1866
  - *Glyptoscelimorpha* Horn 1893
    - subg. *Dystaxiella* Knull 1940
    - subg. *Glyptoscelimorpha*

Family Buprestidae Leach 1815

Subfamily Polycestinae Lacordaire 1857

- Tribe Haplostethini LeConte 1861
  - *Mastogenius* Solier 1849
  - *Trigonogya* Schaeffer 1919
  - *Micrasta* Kerremans 1893
- Tribe Acmaeoderini Kerremans 1893
  - Subtribe Acmaeoderoidina Cobos 1955
    - *Acmaeoderoides* Van Dyke 1942
  - Subtribe Acmaeoderina Kerremans 1893
    - *Acmaeodera* Eschscholtz 1829
      - subg. *Acmaeodera*
      - subg. *Squamodera* Nelson 1996
    - *Acmaeoderopsis* Barr 1974
    - *Anambodera* Barr 1974
- Tribe Ptosimini Kerremans 1902
  - *Ptosima* Dejean 1833
- Tribe Thrincopygini LeConte 1861
  - *Thrincopyge* LeConte 1858
  - *Chrysophana* generic group
  - *Beerellus* Nelson 1982
  - *Chrysophana* LeConte 1860
- Tribe Polycestini Lacordaire 1857
  - *Polycesta* Dejean 1833
    - subg. *Polycesta*
    - subg. *Arizonica* Cobos 1981
    - subg. *Nelsonella* Cobos 1981
    - subg. *Tularensia* Nelson 1997
- Tribe Tyndarini Cobos 1955
  - *Paratyndaris* Fisher 1919
    - subg. *Knulliella* Cobos 1980
    - subg. *Paratyndaris*
    - subg. *Waltersia* Nelson & Bellamy 2004

Subfamily Chrysochroinae Laporte 1835

- Tribe Chrysochroini Laporte 1835
  - *Nanularia* generic group
  - *Ampheremus* Fall 1917
  - *Nanularia* Casey 1909
  - *Texania* generic group
  - *Texania* Casey 1909
- Subtribe Chalcophorina Lacordaire 1857
  - *Chalcophora* Dejean 1833
- Tribe Poecilonotini Jakobson 1911
  - *Poecilonota* Eschscholtz 1829
- Tribe Sphenopterini Lacordaire 1857
  - *Sphenoptera* Dejean 1833
    - subg. *Chilostetha* Jakovlev 1889
- Tribe Dicercini Gistel 1848
  - Subtribe Hippomelanina Hołyński 1993
    - *Barrellus* Nelson & Bellamy 1996
    - *Gyascutus* LeConte 1858
      - subg. *Gyascutus*
      - subg. *Stictocera* Casey 1909
    - *Hippomelas* Laporte & Gory 1837
    - *Prasinalia* Casey 1909
  - Subtribe Dicercina Gistel 1848
    - *Lampetis* generic group
    - *Lampetis* Dejean 1833
      - subg. *Spinthoptera* Casey 1909
    - *Dicerca* generic group
    - *Dicerca* Eschscholtz 1829
      - subg. *Dicerca*
      - subg. *Neoargante* Nelson 2006

Subfamily Buprestinae Leach 1815

- Tribe Buprestini Leach 1815
  - Subtribe Trachykelina Hołyński 1988
    - *Trachykele* Marseul 1865
  - Subtribe Buprestina Leach 1815
    - *Buprestis* Linnaeus 1758
      - subg. *Buprestis*
      - subg. *Cypriacis* Casey 1909
      - subg. *Knulliobuprestis* Kurosawa 1988
      - subg. *Nelsonocheira* Kurosawa 1988
      - subg. *Stereosa* Casey 1909
  - Subtribe Agaeocerina Nelson 1982
    - *Agaeocera* Saunders 1871
    - *Spectralia* generic group
- Tribe Phrixiini Cobos 1975
  - *Spectralia* Casey 1909
- Tribe Anthaxiini Gory & Laporte 1839
  - Subtribe Anthaxiina Gory & Laporte 1839
    - *Agrilaxia* Kerremans 1903
    - *Anthaxia* Eschscholtz 1829
      - subg. *Anthaxia*

subg. *Haplanthaxia* Reitter 1911
subg. *Melanthaxia* Richter 1944
Tribe Xenorhipidini Cobos 1986
Subtribe Xenorhipidina Cobos 1986
Hesperorhipis Fall 1930
Xenorhipis LeConte 1866
Subtribe Trichinorhipidina Bellamy 2006
Trichinorhipis Barr 1948
Tribe Melanophilini Bedel 1921
Melanophila Eschscholtz 1829
Phaenops Dejean 1833
Xenomelanophila Sloop 1937
Juniperella Knull 1947
Tribe Actenodini Kerremans 1890
Actenodes Dejean 1833
Tribe Chrysobothrini Gory & Laporte 1838
Chrysobothris Eschscholtz 1829
Knowltonia Fisher 1935
Sphaerobothris Seminov-Tian-Shanskij & Richter 1934

Subfamily Agrilinae Laporte 1835
Tribe Coraebini Bedel 1921
Eupristocerus Deyrolle 1864
Tribe Agrilini Laporte 1835
Lepismadora Velten 1987
Subtribe Rhaeboscelidina Cobos 1976
Paragrilus Saunders 1871
Subtribe Agrilina Laporte 1835
Agrilus Curtis 1825
subg. *Agrilus*
subg. *Engyaulus* Waterhouse 1889
Tribe Aphanisticini Jacquelin du Val 1863
Aphanisticus Latreille 1829
Tribe Trachyini Laporte 1835
Subtribe Trachyina Gory & Laporte 1839
Trachys Fabricius 1801
Subtribe Brachyina Cobos 1979
Brachys Dejean 1833
Taphrocerus Solier 1833
Subtribe Leiopleurina Hołyński 1993
Leiopleura Deyrolle 1864
Subtribe Pachyschelina Bøving & Craighead 1931
Pachyschelus Solier 1833

Appendix 2. Summary of Constituents by Genus

Genus	sp.	ssp.	syn.	*unvn.
SCHIZOPODIDAE				
Schizopodinae				
Schizopus	2	1	1	
Dystaxia	2		2	
Glyptoscelimorpha	3	1		
BUPRESTIDAE				
Polycestinae				
Mastogenius	7		2	
Trigonogya	1			
Micrasta	1			
Acmaeoderoides	12		1	
Acmaeodera	145	7	40	
Acmaeoderopsis	11		2	
Anambodera	6			
Ptosima	4		2	
Thrincopyge	2		2	
Chrysophana	3		2	1
Beerellus	1			
Polycesta	12		11	
Paratyndaris	15			
Chrysochroinae				
Nanularia	7			
Ampheremus	1		1	
Texania	3		5	
Chalcophora	5		20	
Poecilonota	9		9	
Sphenoptera	1			
Hippomelas	4		4	
Gyascutus	8	2	19	
Prasinalia	2		2	
Barrellus	1			
Lampetis	3		7	
Dicerca	24	3	68	

Genus	sp.	ssp.	syn.	*unvn.
BUPRESTIDAE *cont.*				
Buprestinae				
Trachykele	6	2		
Buprestis	26		82	
Agaeocera	2		1	
Spectralia	6		4	
Anthaxia	43	3	15	
Agrilaxia	2		5	
Xenorhipis	3		1	
Hesperorhipis	4	2		
Trichinorhipis	1			
Juniperella	1			
Melanophila	5		11	8
Phaenops	15	1	8	15
Xenomelanophila	1			
Actenodes	9		6	
Chrysobothris	141	3	55	5
Knowltonia	4			
Sphaerobothris	2		1	
Agrilinae				
Eupristocerus	1		2	
Lepismadora	1			
Paragrilus	3		2	
Agrilus	180	10	77	1
Aphanisticus	1			
Trachys	1		3	
Brachys	11		11	
Taphrocerus	13		5	
Leiopleura	2			
Pachyschelus	8	1	10	
TOTALS	**787**	**36**	**499**	**30**

(*unvn. = unavailable name)

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The list of references presented below is far more than the finite number of papers that are used within the catalog. These references were assembled with the thought that they collectively present the great majority of publications, from short notes and annual state agriculture reports to revisions, monographs and works in which significant higher classification proposals were made. In summary, this bibliography presents an entire suite of previous work and historical precedent on which the current classification of the North American Buprestidae is based from the foundation of Linnaeus (1758) to the most recent papers of 2008.

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